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BARCO

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OCM 2846 / OCM 3346
SCM 2846 VGA
MULTIDATA® II

SERVICE MANUAL

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Important

- On the schematic diagrams, you will find two kinds of identification numbers: the numbers beginning with **K71** or **K78** are *PCB-numbers* (with no components mounted), whereas the numbers beginning with **K76** or **K79** are *unit numbers.*
So use the K76- or K79-numbers when ordering spare boards.

- Most of the PCB's and diagrams in this manual represent several units, which can slightly differ from each other: some components on a particular unit might have another value than drawn on the diagram. Moreover, some components on the PCB's and diagrams might be omitted on some of the units.
Therefore always refer to the parts list of the units you have to repair.

SERVICE WARNINGS

SAFETY NOTICE

Components having special safety characteristics are identified by ⚠ on schematics and on the parts list in this SERVICE MANUAL and its supplements and bulletins. Before servicing this apparatus, it is important that the service technician read and follow the "SAFETY PRECAUTIONS" and "PRODUCT SAFETY NOTICES" in this Service Manual.

X-radiation warning : Replacement of critical components of this apparatus (picture tube and others) can result in excessive X-radiation.
These components are marked in the service manual by a *.
Replace only by conform types.

SAFETY PRECAUTIONS

1. Before returning an instrument to the customer, always make a safety check of the entire instrument, including, but not limited to, the following items :

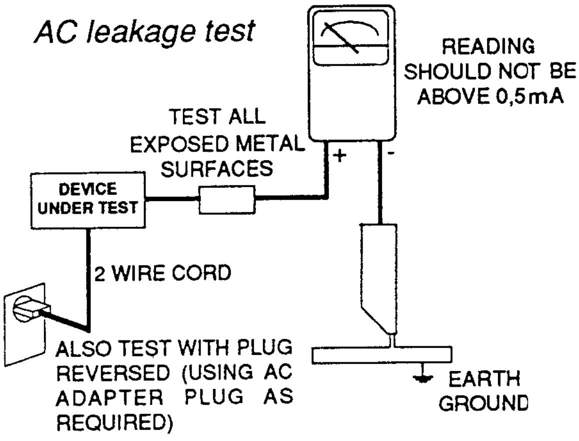
a. Be sure that no built-in protective devices are defective and/or have been defeated during servicing. (1) Protective shields are provided on this chassis to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience. (2) When reinstalling the chassis and/or other assembly in the cabinet, be sure to put back in place all protective devices, including, but not limited to, nonmetallic control knobs, insulating fishpapers, adjustment and compartment covers/shields, and isolation resistor/capacitor networks. Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning. Servicers who defeat safety features or fail to perform safety checks may be liable for any resulting damage.

b. Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to, (1) excessively wide cabinet ventilation slots, and (2) an improperly fitted and/or incorrectly secured cabinet back cover.

c. Leakage Current Hot Check - With the instrument completely reassembled, plug the AC line cord directly into a 220 V AC outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI) C101.1. Leakage Current for Appliances. With the instrument AC switch first in the on position and then in the off position, measure from a known earth ground to all exposed metal parts of the instrument (antennas, handle bracket, metal cabinet, screwheads, metallic overlays, control shafts, etc.). especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.5 milliamp. Reverse the instrument power cord plug in the outlet and repeat test.

WARNING :

ANY MEASUREMENTS NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE INSTRUMENT TO THE CUSTOMER OR BEFORE CONNECTING ACCESSORIES.


AC leakage test
READING SHOULD NOT BE ABOVE 0,5mA
TEST ALL EXPOSED METAL SURFACES
+
-
DEVICE UNDER TEST
2 WIRE CORD
ALSO TEST WITH PLUG REVERSED (USING AC ADAPTER PLUG AS REQUIRED)
EARTH GROUND

d. X- radiation and High voltage -After replacement of any X-ray radiation related safety components (marked in this manual with an *), the following must be checked:
a) Power supply output voltages
b) EHT voltage
c) EHT Hold down circuit
e) Beam current limit circuit
When out of tolerance, the necessary corrective action (re-alignment or replacement of components) must be taken in order not to impair the X-ray radiation safety of the unit.

2. Read and comply with all caution and safety-related notes on or inside the receiver cabinet or on the receiver chassis.

3. Design Alteration Warning - Do not alter or add to the mechanical or electrical design of this apparatus.
Design alterations and additions, including, but not limited to, circuit modifications and the addition of items such as auxiliary audio and/or video output connections, might alter the safety characteristics of this receiver and create a hazard to the user. Any design alterations or additions may void the manufacturer's warranty and may make you, the servicer responsible for personal injury or property damage resulting therefrom.

2.6 CSB - Switches K7916145/ K7916405/K791648

- Printed circuit board CSB.2
- Schematic diagram CSB.3
- Parts List CSB.6

2.7 Transmitter K7619895

- Printed circuit board Transm.2
- Schematic diagram Transm.3
- Parts List Transm.4

2.8 RS422 board K7619961

- Printed circuit board RS422.2
- Schematic diagram RS422.3
- Parts List RS422.4

ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components.
The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminium foil, to prevent electrostatic charge buildup or exposure of the assembly.

3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.

4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.

5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.

6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminium foil or comparable conductive material.)

7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

GENERAL SOLDERING GUIDELINES

1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range 500°F to 600°F (260°C to 315°C)

2. Use an appropriate gauge of RMA resin-core solder composed of 60 parts tin/40 parts lead.

3. Keep the soldering iron tip clean and well tinned.
4. Thoroughly clean the surfaces to be soldered. Use a small wire-bristle (0.5 inch, or 1.25 cm) brush with a metal handle. Do not use freon-propelled spray-on cleaners.

5. Use the following unsoldering technique:

a. Allow the soldering iron tip to reach normal temperature (500°F to 600°F (260°C to 315°C)).

b. Heat the component lead until the solder melts.

c. Quickly draw away the melted solder with an anti-static, suction-type solder removal device or with solder braid.
CAUTION: Work quickly to avoid overheating the circuit board printed foil.

6. Use the following soldering technique:

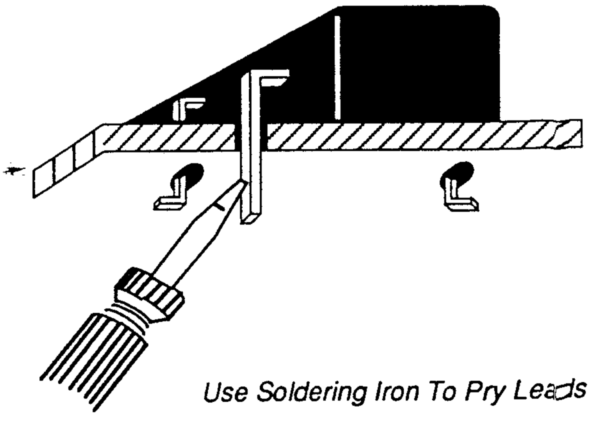
a. Allow the soldering iron tip to reach normal temperature (500°F to 600°F) (260°C to 315°C).

b. First, hold the soldering iron tip and solder strand against the component lead until the solder melts.

c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.

CAUTION: Work quickly to avoid overheating the circuit board printed foil or components.

d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.



Use Soldering Iron To Pry Leads

SERVICE WARNINGS

4. Picture tube implosion protection warning - The picture tube in this apparatus encloses a high vacuum and care must be taken not to bump or scratch the picture tube as this may cause the tube to implode, resulting in personal injury and property damage.
Shatterproof goggles must always be worn by individuals while handling the CRT or installing it.
Keep the CRT away from your body. Do not handle it by the neck.
For continued implosion protection, replace the picture tube only with one of the same type number.

5. Hot Chassis Warning - This monitor has two ground systems: the primary ground system is formed by the negative voltage of the rectified mains and is only used as a reference in primary circuits; the secondary ground system is connected to earth ground via the earth conductor in the mains lead.
Separation between primary and secondary circuits is performed by the safety isolation transformer. Components bridging this transformer are also safety components and must never be defeated or altered.
All user-accessible conductive parts must be connected to earth ground, or are kept at SELV (Safety Extra Low Voltage).

6. Observe original lead dress. Take extra care to assure correct lead dress in the following areas:
a. near sharp edges
b. near thermally hot parts - be sure that leads and components do not touch thermally hot parts
c. the AC supply
d. high voltage
Always inspect in all areas for pinched, out-of-face, or frayed wiring. Do not change spacing between components, and between components and the printed-circuit board. Check AC power cord for damage.

7. Components, parts, and/or wiring that appear to have overheated or are otherwise damaged should be replaced with components, parts, or wiring that meet original specifications. Additionally, determine the cause of overheating and/or damage and, if necessary, take corrective action to remove any potential safety hazard.

8. PRODUCT SAFETY NOTICE - Many electrical and mechanical parts have special safety-related characteristics some of which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified in BARCO service data by ⚠ on schematics and in the parts list. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part in BARCO service data parts list might create shock, fire, and/or other hazards.

Product Safety is under review continuously and new instructions are issued whenever appropriate. For the latest information, always consult the appropriate current BARCO service literature.

SERVICING PRECAUTIONS

CAUTION: Before servicing instruments covered by this service data and its supplements and addenda, read and follow the SAFETY PRECAUTIONS in this publication.

NOTE: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions in this publication, always follow the safety precautions.

Remember: Safety First.

GENERAL SERVICING PRECAUTIONS

1. Always unplug the instrument AC power cord from the AC power source before:
a. Removing or reinstalling any component, circuit board, module, or any other instrument assembly.
b. Disconnecting or reconnecting any instrument electrical plug or other electrical connection.
c. Connecting a test substitute in parallel with an electrolytic capacitor in the instrument.

Caution: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.

2. Do not spray chemical on or near this instrument or any of its assemblies.

3. Unless specified otherwise in this service data, clean electrical contacts by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable nonabrasive applicator: 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90%-99% strength). Caution: This is a flammable mixture. Unless specified otherwise in this service data, lubrication of contacts is not required.

4. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.

5. Always connect the test instrument ground lead to the appropriate instrument chassis ground before connecting the test instrument positive lead. Always remove the test instrument ground lead last.

6. Use with this instrument only the test fixtures specified in this service data.
CAUTION: Do not connect the test fixture ground strap to any heat sink in this instrument.

1.1 Technical Specifications

MULTIDATA® II TYPE	OCM 2846 II HC	OCM 2846 II HC	OCM 2846 RGB HC
PART NUMBER	K9333397	K9333399	K9333367
POWER REQUIREMENTS	AC 220V	AC 120V	AC 220V
POWER CONSUMPTION	150 W	150 W	150 W
PICTURE TUBE	28" (70cm) Black Line "S" HC	28" (70cm) Black Line "S" HC	28" (70cm) Black Line "S" HC
HORIZONTAL RESOLUTION	640 pixels	640 pixels	640 pixels
DOT PITCH	0.8 mm	0.8 mm	0.8 mm
INPUT POSSIBILITIES	Audio/video, S-Video, RGB Ana, TTL, VGA	Audio/video, S-Video, RGB Ana, TTL, VGA	RGB Analog
VIDEO COLOUR SYSTEMS	PAL, SECAM, NTSC3.58, NTSC4.43	PAL, SECAM, NTSC3.58, NTSC4.43	
RGB BANDWIDTH	30 MHz (- 3 dB)	30 MHz (- 3 dB)	30 MHz (- 3 dB)
HORIZONTAL SCAN FREQUENCY	Auto 15 - 36 kHz	Auto 15 - 36 kHz	Auto 15 - 36 kHz
VERTICAL SCAN FREQUENCY	Auto 45 - 120 Hz	Auto 45 - 120 Hz	Auto 45 - 120 Hz
HORIZONTAL BLANKING TIME	5.5 µs	5.5 µs	5.5 µs
VERTICAL BLANKING TIME	550 µs	550 µs	550 µs
SOUND	Mono, 3 W	Mono, 3 W	None
WEIGHT	43 kg	43 kg	41 kg
DIMENSIONS (W xH X D) mm	626x594x467	626x594x467	626x520x467

1.1 Technical Specifications

MULTIDATA® II TYPE	OCM 2846	OCM 2846	OCM 3346	OCM 3346
PART NUMBER	K9330895	K9330899	K9330885	K9330889
POWER REQUIREMENTS	AC 220V	AC 110V	AC 220V	AC 110V
POWER CONSUMPTION	150 W	150 W	150 W	150 W
PICTURE TUBE	28" (70cm) Black Matrix	28" (70cm) Black Matrix	33" (82cm) Black Matrix	33" (82cm) Black Matrix
HORIZONTAL RESOLUTION	640 pixels	640 pixels	640 pixels	640 pixels
DOT PITCH	0.68 mm	0.68 mm	0.8 mm (centre) 1mm (corners)	0.8 mm (centre) 1mm (corners)
INPUT POSSIBILITIES	Audio/video, S-Video, RGB Ana, TTL, VGA	Audio/video, S-Video, RGB Ana, TTL, VGA	Audio/video, S-Video, RGB Ana, TTL, VGA	Audio/video, S-Video, RGB Ana, TTL, VGA
VIDEO COLOUR SYSTEMS	PAL, SECAM, NTSC3.58, NTSC4.43	PAL, SECAM, NTSC3.58, NTSC4.43	PAL, SECAM, NTSC3.58, NTSC4.43	PAL, SECAM, NTSC3.58, NTSC4.43
RGB BANDWIDTH	30 MHz (- 3 dB)	30 MHz (- 3 dB)	30 MHz (- 3 dB)	30 MHz (- 3 dB)
HORIZONTAL SCAN FREQUENCY	Auto 15 - 36 kHz	Auto 15 - 36 kHz	Auto 15 - 36 kHz	Auto 15 - 36 kHz
VERTICAL SCAN FREQUENCY	Auto 45 - 120 Hz	Auto 45 - 120 Hz	Auto 45 - 120 Hz	Auto 45 - 120 Hz
HORIZONTAL BLANKING TIME	5.5 µs	5.5 µs	5.5 µs	5.5 µs
VERTICAL BLANKING TIME	550 µs	550 µs	550 µs	550 µs
SOUND	Mono, 3 W	Mono, 3 W	Mono, 3 W	Mono, 3 W
WEIGHT	43 kg	43 kg	65 kg	65 kg
DIMENSIONS (W xH X D) mm	626x594x467	626x594x467	755x652x547	755x652x547

GENERAL SPECIFICATIONS

- Warm up period:
  30 minutes to meet specs.

- Degaussing:
  Automatic on switching on.

- Temperature range:
  +10 °C to +35 °C ambient air temperature to meet nominal specs
  +10 °C to +45 °C for normal operation
  Using the apparatus in higher temperature can cause failures.

- Humidity:
  Up to 95 % relative humidity over the whole temperature range, non condensing
  Using the apparatus in circumstances of a higher degree of humidity can cause serious damage to the apparatus and the user.

- Altitude:
  Normal performance up to 10.000 ft.
  (3000 m.)
  Do not use the apparatus above this level.

- X-ray radiation:
  Conforms to DHHS rules

- FCC:
  Conforms to FCC class-A requirements

MULTIDATA® II TYPE	SCM 2846 VGA	SCM 2846 VGA	SCM 3346 II	SCM 3346 II
PART NUMBER	K9333027	K9333029	K9330937	K9330939
POWER REQUIREMENTS	AC 220V	AC 120V	AC 220V	AC 120V
POWER CONSUMPTION	140 W	140 W	150 W	150 W
PICTURE TUBE	28" (70cm) Black Matrix	28" (70cm) Black Matrix	33" (82cm) Black Matrix	33" (82cm) Black Matrix
HORIZONTAL RESOLUTION	640 pixels	640 pixels	640 pixels	640 pixels
DOT PITCH	0.68 mm	0.68 mm	0.8 mm (centre) 1 mm (corners)	0.8 mm (centre) 1 mm (corners)
INPUT POSSIBILITIES	RGB VGA	RGB VGA	Audio/video, S-video, RGB Ana, TTL, VGA	Audio/video, S-video, RGB Ana, TTL, VGA
VIDEO COLOUR SYSTEMS			PAL, SECAM, NTSC3.58, NTSC4.43	PAL, SECAM, NTSC3.58, NTSC4.43
RGB BANDWIDTH	30 MHz (- 3 dB)	30 MHz (- 3 dB)	30 MHz (- 3 dB)	30 MHz (- 3 dB)
HORIZONTAL SCAN FREQUENCY	Auto 15 - 36 kHz	Auto 15 - 36 kHz	Auto 15 - 36 kHz	Auto 15 - 36 kHz
VERTICAL SCAN FREQUENCY	Auto 45 - 120 Hz	Auto 45 - 120 Hz	Auto 45 - 120 Hz	Auto 45 - 120 Hz
HORIZONTAL BLANKING TIME	5.5 µs	5.5 µs	5.5 µs	5.5 µs
VERTICAL BLANKING TIME	550 µs	550 µs	550 µs	550 µs
SOUND			Mono, 3W	Mono, 3W
WEIGHT	42 kg	42 kg	73 kg	73 kg
DIMENSIONS (W x H x D) mm	594x468x460	594x468x460	740x578x540	740x578x540

1.2 Parts list on board level

MULTIDATA® II TYPE	OCM 2846 II HC K9333397	OCM 2846 II HC K9333399	OCM 2846 RGB HC K9333367
	220 Vac	120 Vac	220 Vac

Boards **Subboards**

FRAME BOARD	K7615326	K7615326	K7615326
SUPPLY BOARD	K761993	K7619939	K7615331
DECODER BOARD	K761988	K76 1988	K761922
CRT BOARD	K761987	K761987	K761987
INPUT/OUTPUT BOARD	K761985	K761985	none
CONTROL SWITCH BOARD	K7916145	K7916145	none
UNIT RECEIVER	K761994	K761994	none
UNIT DISPLAY	K761991	K761991	none
TRANSMITTER	K7619895	K7619895	none

Mechanical parts

Picture tube	K130955	K130955	K130955
Cabinet	K722008	K723058	K722008
Handles	K801413	K801413	K801413
Handle spindle	K801446	K801446	K801446
Handle holder	K721946	K722249	K721946
Back cover	K732097	K732097	K723019
Bezel	K723021	K723021	K723021

Mechanical parts of CSB

Plinth box (without following parts)	K722152	K722152
Door	K722139	K722139
Door lock	K358043	K358043
Window IR receiver	K721991	K721991
Contrast film for IR receiver	K802061	K802061
Black decorative plate around IR receiver	none	none
Window (47x60 mm)	K722149	K722149
Door for Remote Control compartiment	none	none
Window LED display	none	none
Black decorative plate around LED display	none	none

1.2.1 LIST OF BOARDS AND MAIN MECHANICAL PARTS

MULTIDATA® II TYPE	OCM 2846 II K9330895	OCM 2846 II K9330899	OCM 3346 II K9330885	OCM 3346 II K9330889

Boards **Subboards**

FRAME BOARD	K7615326	K7615326	K7615325	K7615325
SUPPLY BOARD	K761993	K7619939	K761993	K7619939
UNIT DEGAUSS	K761992	K7619929	K761992	K76 9929
DECODER BOARD	K761988	K76 1988	K761988	K761988
CRT BOARD	K761987	K761987	K761987	K761987
INPUT/OUTPUT BOARD	K761985	K761985	K761985	K761985
CONTROL SWITCH BOARD	K7916145	K7916145	K7916405	K7916405
UNIT RECEIVER	K761994	K761994	K761994	K761994
UNIT DISPLAY	K761991	K761991	K761990	K761990
TRANSMITTER	K7619895	K7619895	K7619895	K7619895

Mechanical parts

Picture tube	K130953	K130953	K130945	K130945
Cabinet	K722008	K723058	K7330075	K7330076
Handles	K801413	K801413	K356107	K356107
Handle spindle	K801446	K801446	none	none
Handle holder	K721946	K721946	none	none
Back cover	K732097	K732097	K722199	K722199
Bezel	K723021	K723021	K722107	K722107

Mechanical parts of CSB

Plinth box (without following parts)	K722152	K722152	K732118K	K732118K
Door	K722139	K722139	K721870	K721870
Door lock	K358043	K358043	K358043	K358043
Window IR receiver	K721991	K721991	K721898	K721898
Contrast film for IR receiver	K802061	K802061	K802321	K802321
Black decorative plate around IR receiver	none	none	K722138	K722138
Window (47x60 mm)	K722149	K722149	none	none
Door for Remote Control compartiment	none	none	K721871	K721871
Window LED display	none	none	K721750	K721750
Black decorative plate around LED display	none	none	K722193	K722193

1.2.2 DETAILED LIST OF PARTS AND BOARDS

OCM 2846 Multidata® II K9330895

ORDER NO.	DESCRIPTION	ITEM
K0330899	OPI MN46 OCM2846	
K3261031	CD (0.75) 3 IEC_2X S	0302
K344002	CD MT FL RED 320 2XP 6	
K344005	UN W MN46 COAX 280	
K3440201	UN CD MTFL S 100 2XP 5	
K344021	UN W MN50 OUT BUS 400	
K344023	CD MT FL BLA 100 2XP 3	
K344047	CD MT FL BLA 250 2XP13	
K344048	CD MT FL BLU 550 2XP 7	
K3440551	UN WIRE AWG18 YEL-GRE F-R	0646
K344063	CD MT FL BLA 350 2XP12	0647
K34808406	GRMT T1.5 CONT_SOL L06	0649
K34808415	GRMT T1.5 CONT_SOL L15	0650
K3482231	UN W MN46 OCM/SCM IR	0648
K3615075	SCR DIN7981 3.2X 8.5	0241,0511, 0521,0541
K3615085	SCR DIN7981 3.2X 16	0701
K3615095	SCR DIN7981 4.2X 9.5	0852
K3615105	SCR DIN7981 4.2X 13	0513
K3615125	SCR DIN7981 4.2X 16	0501
K3615135	SCR DIN7981 4.2X 25	0301
K362121	SCR DIN7985 M 3 X 6 F N	0221,0231
K3621225	SCR DIN7985 M 3 X 6	0514
K362123	SCR DIN7985 M 3 X 10	0203
K362124	SCR DIN7985 M 3 X 12	0204
K362127	SCR DIN7985 M 3 X 20	0205
K362154	SCR DIN7985 M 4 X 16	0532
K366103	NUT DIN934 M 4	0532
K366921	SCR I FRF M 6 VIDEOPL	0412
K367455	RVT POPS TAP/D/BS46 D3.2	0525,0527
K367502	WSHR DIN6798 A 3.2 F Z	0202,0522
K367503	WSHR DIN6798 A 4.3 F Z	0534
K367576	WSHR DIN433 M 4 L	0422
K590143	LABEL MN46 UNSCREW 00	
K590206	LABEL PJ EARTH 00	053
K590210	LABEL PJ EARTH+FUSE GB 00	
K592994	BAG PE 400X 250	

ORDER NO.	DESCRIPTION	ITEM
K593001	BAG PE 180X 250X 0.07	
K593096	BOX FIT PEF 2460X375	0201
K7123022	WSHR D 3.25X 7 T0.7 E	0702
K7123061	WSHR D 4.25X15 T1 Z	0502
K714008	SCR BVC FULL_SCRN	0421
K720330	CBL ACC HLDR	0524
K721560	GUID PJ PCB L 97.5	0526
K721945	SPKR BOX MQ2000	070
K721946	HDL MN40 OCM28 HLDR	0801
K721963	HSG MN40 DCD28 CVR CAP	0851
K722008	HSG MN40 OCM28	040
K722092	FIX MN46 OCM28 FRM CASEDN	050
K722093	FIX MN46 OCM28 PCB GUID	054
K722094	HSG MN46 OCM28 CSB FIX	055
K723021	HSG MN46 OCM28 RGB FRFBLL	041
K732097	BCKCVR MN46 OCM28 CSSS 01	042
K7615326	UN H/V MN46 OCM28 RC 08	
K761961	UN PARTS MN46 OCM28 BLMK2	000
K761980	UN PARTS MN46 LABEL 00	2100
K761985	UN I/O MN46 RC 04	024
K761987	UN RGB MN46 CRT RC 03	
K761988	UN DEC MN46 Q/SD RC 08	023
K7619895	UN TX MN46 USER RC 01	
K761993	UN SMPS MN46 220 RC 04	022
K7916145	UN CSB MN46 OCM28 CPL RC	030
K801413	HDL MN40 OCM28	080
K801446	HDL MN40 OCM28 HINGE	0802
K801525	FIX MN40 OCM28 NUT CLG	085
K801958	BOX FIT OCM2840 EPERAN CP	0903
K802100	CSB MN46 OCM28 PANEL 08	051
K802101	FIX MN46 OCM28 SMP 07	052
K802108	FIX MN46 SCM28 B	0523
K802237	FIX MN46 OCM28 CSB PAN 03	0512
K804068	DPL MN46 OCM28 FRF	0411
K804114	BOX 0201 745X560X687 HOH	090
K804144	BOX FIT OCM2846 SET B	0901
K804163	GRID MN46 OCM28 INOX 01	0423

1.2 Parts list on board level

MULTIDATA® II TYPE	SCM 2846 VGA K9333027	SCM 2846 VGA K9333029	SCM 3346 II K9330937	SCM 3346 II K9330939
	220 Vac	120 Vac	220 Vac	120 Vac

Boards **Subboards**

FRAME BOARD	K7615326	K7615326	K7615328	K7615328
SUPPLY BOARD	K761969	K7619699	K761993	K7619939
DECODER BOARD	none	none	K761988	K761988
CRT BOARD	K761987	K761987	K761987	K761987
INPUT/OUTPUT BOARD	K761921	K761921	K761985	K761985
INPUT S-VHS	none	none	K761986	K761986
RS-422 board	none	none	K761996	K761996
CONTROL SWITCH BOARD	K791648	K791648	K791905	K791905
UNIT DISPLAY	none	none	K761995	K761995
TRANSMITTER	none	none	K7619895	K7619895

Mechanical parts

Picture tube	K802931	K802931	K130945	K130945
Cabinet	K804012	K804012	K804158	K804158
Handles	K356107	K356107	K356107	K356107
Back cover	V602940	V602940	V602939	V602939
Bezel	K7220505	K722050	V622166	V622166
Isolation board	none	none	K804085	K804085
Bottom plate Frame board fixing	none	none	K802885	K802885
Fixing plate videowall installation	none	none	K804084	K804084
Fixing assembly for control panel	none	none	V602937	V602937
Fan	none	none	K324388	K324399
Fan protection plate	none	none	V601349	V601349

OCM 3346 Multidata® II K9330885

ORDER NO.	DESCRIPTION	ITEM
K0330889	OPI MN46 OCM3346	
K3261031	CD (0.75) 3 IEC_2X S	
K344002	CD MT FL RED 320 2XP 6	
K344005	UN W MN46 COAX 280	
K3440201	UN CD MTFL S 100 2XP 5	
K344021	UN W MN50 OUT BUS 400	
K344023	CD MT FL BLA 100 2XP 3	
K344047	CD MT FL BLA 250 2XP13	
K344048	CD MT FL BLU 550 2XP 7	
K3440551	UN WIRE AWG18 YEL-GRE F-R	0646
K344063	CD MT FL BLA 350 2XP12	0647
K348024	FSTNR CBL	0223
K34808406	GRMT T1.5 CONT_SOL L06	0649
K34808415	GRMT T1.5 CONT_SOL L15	0650
K3482231	UN W MN46 OCM/SCM IR	0648
K3615075	SCR DIN7981 3.2X 8.5	0041,0511,0521,0541
K3615125	SCR DIN7981 4.2X 16	0501
K362121	SCR DIN7985 M 3 X 6 F N	0221,0231
K362123	SCR DIN7985 M 3 X 10	0203
K362127	SCR DIN7985 M 3 X 20	0512
K362154	SCR DIN7985 M 4 X 16	0532
K366102	NUT DIN934 M 3	0204,0513
K366103	NUT DIN934 M 4	0533
K367452	RVT POPS TAP/D/BS329 D2.4	
K367455	RVT POPS TAP/D/BS46 D3.2	0525,0527
K367502	WSHR DIN6798 A 3.2 F Z	0202,0514,0522
K367503	WSHR DIN6798 A 4.3 F Z	0534
K395466	TAPE ELEC 228UL 19	
K592994	BAG PE 400X 250	
K593001	BAG PE 180X 250X 0.07	
K720330	CBL ACC HLDR	0524
K721560	GUID PJ PCB L 97.5	0526
K721870	DOOR TV 40 CSB CASE FST	031
K722092	FIX MN46 OCM28 FRM CASEDN	050
K722093	FIX MN46 OCM28 PCB GUID	054
K722107	FRF MN40 OCRM33	041
K7330075	HSG MN46 OCM33 GRA II	040
K7615325	UN H/V MN46 OCM33 RC 07	
K7616061	UN PARTS MN46 OCM33 Q	000
K761980	UN PARTS MN46 LABEL 00	2100
K761985	UN I/O MN46 RC 04	004
K761987	UN RGB MN46 CRT RC 03	
K761988	UN DEC MN46 Q/SD RC 08	023
K7619895	UN TX MN46 USER RC 01	
K761993	UN SMPS MN46 220 RC 04	022
K7916405	UN CSB MN46 OCM33 CPL RC	010
K802100	CSB MN46 OCM28 PANEL 08	051
K802101	FIX MN46 OCM28 SMP 07	052
K802108	FIX MN46 SCM28 B	0523
K802461	DPL MN40 OCRM33 FRF STRIP	0411
K804163	GRID MN46 OCM28 INOX 01	0401

OCM 2846 Multidata® II K9330899

ORDER NO.	DESCRIPTION	ITEM
K0330899	OPI MN46 OCM2846	
K326111	CD (AWG18) 3 UL _IEC	0302
K344002	CD MT FL RED 320 2XP 6	
K344005	UN W MN46 COAX 280	
K3440201	UN CD MTFL S 100 2XP 5	
K344021	UN W MN50 OUT BUS 400	
K344023	CD MT FL BLA 100 2XP 3	
K344047	CD MT FL BLA 250 2XP13	
K344048	CD MT FL BLU 550 2XP 7	
K3440551	UN WIRE AWG18 YEL-GRE F-R	0646
K344063	CD MT FL BLA 350 2XP12	0647
K34808406	GRMT T1.5 CONT_SOL L06	0649
K34808415	GRMT T1.5 CONT_SOL L15	0650
K3482231	UN W MN46 OCM/SCM IR	0648
K3615075	SCR DIN7981 3.2X 8.5	0241,0511, 0521,0541
K3615085	SCR DIN7981 3.2X 16	0701
K3615095	SCR DIN7981 4.2X 9.5	0852
K3615105	SCR DIN7981 4.2X 13	0513
K3615125	SCR DIN7981 4.2X 16	0501
K3615135	SCR DIN7981 4.2X 25	0301
K362121	SCR DIN7985 M 3 X 6 F N	0221,0231
K3621225	SCR DIN7985 M 3 X 6	0514
K362123	SCR DIN7985 M 3 X 10	0203
K362124	SCR DIN7985 M 3 X 12	0204
K362127	SCR DIN7985 M 3 X 20	0205
K362154	SCR DIN7985 M 4 X 16	0532
K366103	NUT DIN934 M 4	0532
K366921	SCR I FRF M 6 VIDEOPL	0412
K367455	RVT POPS TAP/D/BS46 D3.2	0525,0527
K367502	WSHR DIN6798 A 3.2 F Z	0202,0522
K367503	WSHR DIN6798 A 4.3 F Z	0534
K367576	WSHR DIN433 M 4 L	0422
K590135	LABEL PJ USA POW INPUT 11	
K590143	LABEL MN46 UNSCREW 00	
K590206	LABEL PJ EARTH 00	053
V590225	LAB CAUTION HIGH	
K592994	BAG PE 400X 250	
K593001	BAG PE 180X 250X 0.07	
K593096	BOX FIT PEF 2460X375	0201
K7123022	WSHR D 3.25X 7 T0.7 E	0702
K7123061	WSHR D 4.25X15 T1 Z	0502
K714008	SCR BVC FULL_SCRN	0421
K720330	CBL ACC HLDR	0524
K721560	GUID PJ PCB L 97.5	0526
K721945	SPKR BOX MQ2000	070
K7219631	CVR MN46 OCM28 CAP BLA	0851
K722092	FIX MN46 OCM28 FRM CASEDN	050
K722093	FIX MN46 OCM28 PCB GUID	054
K722094	HSG MN46 OCM28 CSB FIX	055
K722249	HDL MN40 OCM28 HLDR 110V	0801
K723021	HSG MN46 OCM28 RGB FRFBLL	041
K723058	HSG MN46 OCM28 DARKGRA 01	040
K732097	BCKCVR MN46 OCM28 CS 01	042
K7615326	UN H/V MN46 OCM28 RC 08	
K761962	UN PARTS MN46 OCM28 BLMK2	000
K761980	UN PARTS MN46 LABEL 00	2100
K761985	UN I/O MN46 RC 04	024
K761987	UN RGB MN46 CRT RC 03	
K761988	UN DEC MN46 Q/SD RC 08	023
K7619895	UN TX MN46 USER RC 01	
K7619939	UN SMPS MN46 110 RC 04	022
K7916145	UN CSB MN46 OCM28 CPL RC	030
K801413	HDL MN40 OCM28	080
K801446	HDL MN40 OCM28 HINGE	0802
K801525	FIX MN40 OCM28 NUT CLG	085
K801958	BOX FIT OCM2840 EPERAN CP	0903
K802100	CSB MN46 OCM28 PANEL 08	051
K802101	FIX MN46 OCM28 SMP 07	052
K802108	FIX MN46 SCM28 B	0523
K802237	FIX MN46 OCM28 CSB PAN 03	0512
K804068	DPL MN46 OCM28 FRF	0411
K804114	BOX 0201 745X560X687 HOH	090
K804144	BOX FIT OCM2846 SET B	0901
K804163	GRID MN46 OCM28 INOX 01	0423

1.2 Parts list on board level

Multidata® II SCM 2846 VGA K9333027

ORDER NO.	DESCRIPTION	ITEM
K306663	COIL DEG MN40 SCM28	
K312000	SPG 7 X50 /0.6	
K322057	UN BAS CPL	070
K324388	FAN 220V 12LS 30DB 92 22	0022
K344002	CD MT FL RED 320 2XP 6	025
K344003	CD MT FL BLU 270 2XP 7	026
K344030	UN W MN46 SCM33 FAN	0027
K3440551	UN WIRE AWG18 YEL-GRE F-R	0646
K344063	CD MT FL BLA 350 2XP12	0647
K348004	W ACC TIE BAND L140 W3.2	001
K348019	W ACC TIE BAND L100 W2.5	
K348020	W ACC TIE BAND L110 W	
K348024	FSTNR CBL	
K348073	W ACC TIE BAND L356 W2.4	
K34808406	GRMT T1.5 CONT_SOL L06	0649
K34808415	GRMT T1.5 CONT_SOL L15	0650
K348086	FSTNR W SLCSE DIA 8.9	0024
K348096	FSTNR W SADDLE LWS-A-4	0703
K348218	UN W MN40 SCM28 CVS P	
K3482231	UN W MN46 OCM/SCM IR	0648
K3494079	UN CD MN46 DEFL CPL 00	
K356107	HDL HSG MN V_WALL 2731	
K3615075	SCR DIN7981 3.2X 8.5	0511,0521,0541
K3615105	SCR DIN7981 4.2X 13	0504
K3619245	SCR DIN965 M 4 X 10	0703
K3620305	SCR DIN84 M 3 X 30	0023
K362066	SCR DIN84 M 5 X 10	
K362077	SCR DIN84 M 6 X 10	
K362121	SCR DIN7985 M 3 X 6 F N	0221,0231,0602
K3621225	SCR DIN7985 M 3 X 6	0512,0603
K362123	SCR DIN7985 M 3 X 10	0203
K3621513	SCR DIN7985 M 4 X 8 FTB	
K362154	SCR DIN7985 M 4 X 16	0532
K3626705	SCR DIN921 M 3 X 10	
K366103	NUT DIN934 M 4	0532
K3674546	RVT POPS SSD42SSBS D3.2	
K367455	RVT POPS TAP/D/BS46 D3.2	0011,0525,0527,0701
K367502	WSHR DIN6798 A 3.2 F Z	0025,0202,0522
K367503	WSHR DIN6798 A 4.3 F Z	0534
K367504	WSHR DIN6798 A 5.3 F Z	
K593001	BAG PE 180X 250X 0.07	
V602940	BCKCVR SCM2846 VGA ANA LA	0020
K721560	GUID PJ PCB L 97.5	0526
K722050	FRF MN40 SCM28	
K722093	FIX MN46 OCM28 PCB GUID	054
K722184	FIX MN46 SCM28 FRM BRIDGE	0503
K732131	FIX MN46 SCM28 FRM SSS 03	050
K7611298	UN AKWADAG 1260 TV40 2E2	
K7615326	UN H/V MN46 OCM28 RC 08	020
K761921	UN RGB VGA MN46 MDII LA	024
K761969	UN SMPS MN46 220 OCM 02	022
K761980	UN PARTS MN46 LABEL 00	2100
K761987	UN RGB MN46 CRT RC 03	0201
K791648	UN S MN46 SCM28 AC CPL	060
K801572	HSG MN40 SCM28 SPR CRT	
K801618	FIX MN40 SCM28 PLT	
K801714	SCR NUT CRT M 5 /M3 SCM	
K802108	FIX MN46 SCM28 B	0523
K802568	FRM MN46 SCM28 MAINS FIX	0601
K802569	FRM MN46 SCM28 GUID L	
K802570	FRM MN46 SCM28 GUID R	
K802574	FRM MN46 SCM28 SMP PLT	052
K802931	CRT ADAPTATION K130953	
K804008	HSG MN46 SCM28 FIXCTRLFIS	0514
K804009	HSG MN46 SCM28 FIXCTRLFIS	051
K804012	HSG MN46 SCM28 CPL FIS	
K804099	BOX FIT SCM2846/40 CPL	
K804112	BOX 0201 705X545X588 HOH	
K804137	PLT MN46 FAN SCM CPL	0026
K804143	FIX MN40 SCM28 CRT V_2	

1.2 Parts list on board level

OCM 3346 Multidata® II K9330889

ORDER NO.	DESCRIPTION	ITEM
K0330889	OPI MN46 OCM3346	
K326111	CD (AWG18) 3 UL _IEC	
K344002	CD MT FL RED 320 2XP 6	
K344005	UN W MN46 COAX 280	
K3440201	UN CD MTFL S 100 2XP 5	
K344021	UN W MN50 OUT BUS 400	
K344023	CD MT FL BLA 100 2XP 3	
K344047	CD MT FL BLA 250 2XP13	
K344048	CD MT FL BLU 550 2XP 7	
K3440551	UN WIRE AWG18 YEL-GRE F-R	0646
K344063	CD MT FL BLA 350 2XP12	0647
K348024	FSTNR CBL	0224
K34808406	GRMT T1.5 CONT_SOL L06	0649
K34808415	GRMT T1.5 CONT_SOL L15	0650
K3482231	UN W MN46 OCM/SCM IR	0648
K3615075	SCR DIN7981 3.2X 8.5	0041,0511, 0521,0541
K3615125	SCR DIN7981 4.2X 16	0501
K362121	SCR DIN7985 M 3 X 6 F N	0221,0231
K362123	SCR DIN7985 M 3 X 10	0203
K362127	SCR DIN7985 M 3 X 20	0512
K362154	SCR DIN7985 M 4 X 16	0532
K366102	NUT DIN934 M 3	0204,0513
K366103	NUT DIN934 M 4	0533
K367452	RVT POPS TAP/D/BS329 D2.4	
K367455	RVT POPS TAP/D/BS46 D3.2	0525,0527
K367502	WSHR DIN6798 A 3.2 F Z	0202,0514, 0522
K367503	WSHR DIN6798 A 4.3 F Z	0534
K395466	TAPE ELEC 228UL 19	
K590135	LABEL PJ USA POW INPUT 11	
V590225	LAB CAUTION HIGH	
K592994	BAG PE 400X 250	
K593001	BAG PE 180X 250X 0.07	
K720330	CBL ACC HLDR	0524
K721560	GUID PJ PCB L 97.5	0526
K721870	DOOR TV 40 CSB CASE FST	031
K722092	FIX MN46 OCM28 FRM CASEDN	050
K722093	FIX MN46 OCM28 PCB GUID	054
K722107	FRF MN40 OCRM33	041
K7330076	HSG MN46 OCM33 DARK GRAII	040
K7615325	UN H/V MN46 OCM33 RC 07	
K7616061	UN PARTS MN46 OCM33 Q	000
K761980	UN PARTS MN46 LABEL 00	2100,2101
K761985	UN I/O MN46 RC 04	004
K761987	UN RGB MN46 CRT RC 03	
K761988	UN DEC MN46 Q/SD RC 08	023
K7619895	UN TX MN46 USER RC 01	
K7619939	UN SMPS MN46 110 RC 04	022
K7916405	UN CSB MN46 OCM33 CPL RC	010
K802100	CSB MN46 OCM28 PANEL 08	051
K802101	FIX MN46 OCM28 SMP 07	052
K802108	FIX MN46 SCM28 B	0523
K802461	DPL MN40 OCRM33 FRF STRIP	0411
K804163	GRID MN46 OCM28 INOX 01	0401

1.2 Parts list on board level

SCM3346 Multidata® II 220 IR K9330937

ORDER NO.	DESCRIPTION	ITEM
K0330899	OPI MN46 OCM2846	25
K130945	CRT A80EBK221X33	03
K312008	SPG EXTN 7 X76.4/0.6 S	0311
K3130973	J MNS MCT A 3 PMF	0520
V3135035	J D ACC SCR_L U/U L 8	0611
V313799	J LS FWT P 2 PUSH	0440
K324268	SW KYBD TCT 1258 PHASE	0550
K324388	FAN 220V 12LS 30DB S 92	0410
K3261031	CD (0.75) 3 IEC_2X S 2M5	2130
K344002	CD MT_2 FL P 6 320 RED	0684
K344005	UN W MN46 COAX 280	0683
K3440051	UN W MN46 COAX 700	0683
K3440052	UN W MN46 COAX 150	0688
K344007	UN W MN33 SCM46	0515
K3440232	CD MT_2 FL P 3 160 BLK	0687
K344030	UN W MN46 SCM33 FAN	0430
K3440471	CD MT_2 FL P13 800 BLK	0685
K344048	CD MT_2 FL P 7 550 BLU	0686
K344063	CD MT_2 FL P12 350 BLK	0681
K344069	UN WIRE DEG 5P L50 00	0340
K344070	UN WIRE DEG L40 00	0341
V348063	CBL ACC CLP FLT	0913
K348072	CBL ACC TIE B L500 W7.6	0212
K348086	FSTNR W SLCSE DIA 8.9	0680
K348096	FSTNR W SADDLE LWS-A-4	0530
K348216	UN W TV40 LS 60CM	0441
K3482231	UN W MN46 OCM/SCM IR	0682
K3494079	UN CD MN46 DEFL CPL 00	033
K356107	HDL FOLD 120X 90 BLK	0210
K3615075	SCR HILO_P 3.2X 8.5HS B	0641
V3619025	SCR D965 M 2.5X 6 S B	0122
K3619145	SCR D965 M 3 X 10 S B	0521
K3620305	SCR D84 M 3 X 30 S B	0421
K362077	SCR D84 M 6 X 10 S Z	2702
K3621121	SCR D7985 M 2.5X 6 S Z	0123
K362121	SCR D7985 M 3 X 6 S Z	0689
K3621225	SCR D7985 M 3 X 8 S B	0505,0613,1501
K362124	SCR D7985 M 3 X 12 S Z	0554
K3621513	SCR D7985 M 4 X 8 SCZ	1502
K3621523	SCR D7985 M 4 X 10 SCB	1401
K3621533	SCR D7985 M 4 X 12 SCZ	140
K362154	SCR D7985 M 4 X 16 S Z	0525
K3623762	SCR D933 M 8 X 25 XS B	2704
K3626705	SCR D921 M 3 X 10 S B	0603,1102,1504
K3627325	SCR D580 M 8 S Z	2703
K363511	SCR D7971F 2.2X 9.5 S Z	0512
K3638005	SCR PT1412 1.4X 10 HS B	0516
V366102	NUT D934 M 3 S Z	0523
V366103	NUT D934 M 4 S Z	0528
K367455	RVT POP D3.2 L 8 P SS	0221,0231,0504
K3674661	RVT POP D4 L 8.6 C AS	0211
K367502	WSHR D6798 A 3.2 S Z	0422,0507,0522
K367503	WSHR D6798 A 4.3 S Z	0527
K367504	WSHR D6798 A 5.3 S Z	0603,1503
ORDER NO.	DESCRIPTION	ITEM
K367509	WSHR D 6.5 X19.5 T0.6 D	1304
V368403	SPR L 8 D 5 M 2.5 M	0121
K52600110	GRMT T0.5 CONT_SOL L10	024
K592994	BAG PE 400X 250	2001
K593001	BAG PE 180X 250X 0.07	27
K593499	BOX FIT CORNER L PVC 37X3	302
K5976016	OPI MN46 RS422 PROTOCOL	2500
V601349	CENTER PLATE SCM33** 00	1300,1301
V602937	HSG MN46 SCM33 CONT_P 00	05
V602938	FIX MN46 RS422 01	0612
V602939	BCKCVR MN46 SCM33 IR 01	04
V604001	PLT FAN SCM33 CPL $$$ 00	0420
V622166	FRF MN46 SCM33 $$$ 00	01
V622181	DPL ILLUM SCM3346 00	0111
K7123035	WSHR D 3.25X10 T1 B	0553
K721560	GUID PJ PCB L 97.5	022 ,0503
K721834	BTN T CNTR DCD2740	0511
K722232	SCR BSC ISO M 3	0552
K733004	PALLET MN33 68 01	30
K733005	BOX FIT BOARD 660X895 02	3003
K7615191	UN AKWADAG(1400) 2E2 SC	0310
K7615328	UN H/V MN46 SCM33 RC 05	06
K761980	UN PARTS MN46 LABEL 00	2100
K761985	UN I/O MN46 RC 07	064
K761986	UN I/O MN46 SVHS RC 00	0551
K761987	UN RGB MN46 CRT RC 05	065
K761988	UN DEC MN46 Q/SD RC 11	068
K7619895	UN TX MN46 USER RC 01	2600
K761993	UN SMPS MN46 220 RC 07	067
K761995	UN DSPL MN46 SCM RC 01	012
K761996	UN RS422 MN46 SCM RC 00	0610
K7742209	COIL DEG 33" SINGLE	034
K791905	UN S MN46 SCM33 RC	0510
K802108	FIX MN46 SCM28 B	0502
K802885	HSG MN46 SCM33 BTM SLD 03	0500
K802942	HSG MN46 SCM33 GUID FRM	0501
K802943	HSG MN46 SCM33 FIX FRM A	150
K804034	SCR MN46 SCM33 CRT FIX	1302
K804059	BOX0200MN33DN 882X647X300	3001
K804062	BOX FIT SCM3346 CORN DN02	3005
K804063	BOX FIT SCM3346 CORN DN02	3007
K804064	BOX 0200 UP 900X665X728 H	3002
K804065	BOX FIT SCM3346 CORN UP02	3010
K804084	HSG MN46 SCM33 FIX PLT	2701
K804085	HSG MN46 SCM33 SCRN DEG	023
K804086	BOX FIT SCM3346 CORN DN02	3006
K804087	BOX FIT SCM3346 CORN DN02	3004
K804088	BOX FIT SCM3346 CORN UP02	3011
K804089	BOX FIT SCM3346 CORN UP02	3008
K804090	BOX FIT SCM3346 CORN UP02	3009
K804104	WSHR D 6.25X20 T3	1304
K804158	HSG SCM33 MN46/50 CPL	02
K804171	NPL MN46 SCM33 II FRF 01	0110

OCM2846 Multidata® II IR K9333397

ORDER NO.	DESCRIPTION	ITEM
K0330899	OPI MN46 OCM2846	25
K306663	COIL DEG MN40 SCM28	0340
C312000	SPG EXTN 7 X50 Γ0.6 S	0321
K3261031	CD (0.75) 3 IEC_2X S 2M5	21
K344002	CD MT_2 FL P 6 320 RED	0784
K344005	UN W MN46 COAX 280	0780
K3440201	UN CD MTFL S 100 2XP 5	0781
K344021	UN WIRE AWG18 GRA 200 F-F	0785
K344023	CD MT_2 FL P 3 100 BLK	0782
K344047	CD MT_2 FL P13 250 BLK	0783
K344048	CD MT_2 FL P 7 550 BLU	0790
K3440551	UN WIRE AWG18 Y/G 200 F-R	1902
K344063	CD MT_2 FL P12 350 BLK	0941
V348000	CBL ACC TIE B L 98 W2.5	0351,1905
V348006	CBL ACC TIE B L140 W3.6	0341
K348024	FSTNR CBL	1907
V348063	CBL ACC CLP FLT	0913
K348083	FIX MN40 DEAUSSING & AKWA	0331
K34808406	GRMT T1.5 CONT_SOL L06	0940
K34808415	GRMT T1.5 CONT_SOL L15	0770
K348096	FSTNR W SADDLE LWS-A-4	0771
K3482231	UN W MN46 OCM/SCM IR	0786
K3494079	UN CD MN46 DEFL CPL 00	0350
K3615075	SCR HILO_P 3.2X 8.5HS B	0731,1601 1701,1900
K3615085	SCR HILO_P 3.2X 16 HS B	1753
K3615095	SCR HILO_P 4.2X 9.5HS B	0225
K3615105	SCR HILO_P 4.2X 13 HS B	1710
K3615125	SCR HILO_P 4.2X 16 HS B	0255
K3615135	SCR HILO_P 4.2X 25 HS B	1281
K362121	SCR D7985 M 3 X 6 S Z	0761,0931
K3621225	SCR D7985 M 3 X 8 S B	0711
K362127	SCR D7985 M 3 X 20 S Z	1702
K362154	SCR D7985 M 4 X 16 S Z	0920
K3626705	SCR D921 M 3 X 10 S B	1602
V366102	NUT D934 M 3 S Z	1703
V366103	NUT D934 M 4 S Z	0921,1903
K366158	NUT TWOLOK M 6 S Z	13
K366921	SCR I FRF M 6 VIDEOPL	0110
K367455	RVT POP D3.2 L 8 P SS	0912,0914
K367502	WSHR D6798 A 3.2 S Z	1704,1901
K367503	WSHR D6798 A 4.3 S Z	0922,1904
K367504	WSHR D6798 A 5.3 S Z	1603
ORDER NO.	DESCRIPTION	ITEM
K367576	WSHR D433 4.3 PL	1402
K592994	BAG PE 400X 250	2511
K593001	BAG PE 180X 250X 0.07	2510
K593096	BOX FIT PEF 2460X375	0290
V593293	BOX FIT PE 120X 70X 60	3030
V602914	COVER PLATE RS422 00	0709
K7123031	WSHR D 3.25X10 T1 Z	1754
K7123061	WSHR D 4.25X15 T1 Z	0256
K714008	SCR BVC FULL_SCRN	1400
K721560	GUID PJ PCB L 97.5	0911
K721945	SPKR BOX MQ2000	1751
K721946	HDL MN40 OCM28 HLDR	0220
K721963	HSG MN40 DCD28 CVR CAP	0223
K722008	HSG MN40 OCM28	02
K722092	FIX MN46 OCM28 FRM CASEDN	0254
K722093	FIX MN46 OCM28 PCB GUID	1600
K722094	HSG MN46 OCM28 CSB FIX 01	0270
K723021	FRF MN46 OCM28 RGB BLL	01
K732097	BCKCVR MN46 OCM28 C$$$ 05	04
K7611298	UN AKWADAG 1260 TV40 2E2	0320
K7615326	UN H/V MN46 OCM28 RC 16	06
K761980	UN PARTS MN46 LABEL 00	20
K761985	UN I/O MN46 RC 07	0730
K761987	UN RGB MN46 CRT RC 05	0610
K761988	UN DEC MN46 Q/SD RC 11	0760
K7619895	UN TX MN46 USER RC 01	23
K761993	UN SMPS MN46 220 RC 07	0930
K7916145	UN CSB MN46 OCM28 RC 00	1280
K801413	HDL MN40 OCM28	0221
K801446	HDL MN40 OCM28 HINGE	0222
K801525	FIX MN40 OCM28 NUT CLG	0224
K801781	WSHR D 6.5 X15 T4.3 P	1310
K801958	BOX FIT OCM2840 EPERAN CP	3020
K802100	CSB MN46 OCM28 PANEL 09	07
K802101	FIX MN46 OCM28 SMP 07	09
K802108	FIX MN46 SCM28 B	0910
K802237	FIX MN46 OCM28 CSB PAN 03	0710
K802940	CRT ADPT K130955	03
K804068	DPL MN46 OCM28 FRF	0120
K804114	BOX 0201 745X560X687 HOH	30
K804144	BOX FIT OCM2846 SET B	3010
K804163	GRID MN46 OCM28 INOX 01	0410

1.2 Parts list on board level

OCM2846 Multidata® II IR K9333399

ORDER NO.	DESCRIPTION	ITEM
K0330899	OPI MN46 OCM2846	25
C312000	SPG EXTN 7 X50 /0.6 S	0321
V326111	CD (AWG18) 3 UL/IEC 2M5	21
K344002	CD MT_2 FL P 6 320 RED	0784
K344005	UN W MN46 COAX 280	0780
K3440201	UN CD MTFL S 100 2XP 5	0781
K344021	UN WIRE AWG18 GRA 200 F-F	0785
K344023	CD MT_2 FL P 3 100 BLK	0782
K344047	CD MT_2 FL P13 250 BLK	0783
K344048	CD MT_2 FL P 7 550 BLU	0790
K3440551	UN WIRE AWG18 Y/G 200 F-R	1902
K344063	CD MT_2 FL P12 350 BLK	0941
V348000	CBL ACC TIE B L 98 W2.5	0351,1905
V348006	CBL ACC TIE B L140 W3.6	0341
K348024	FSTNR CBL	1907
V348063	CBL ACC CLP FLT	0913
K348073	CBL ACC TIE B L356 W2.4	0332
K348083	FIX MN40 DEAUSSING & AKWA	0331
K34808406	GRMT T1.5 CONT_SOL L06	0940
K34808415	GRMT T1.5 CONT_SOL L15	0770
K348096	FSTNR W SADDLE LWS-A-4	0771
K3482231	UN W MN46 OCM/SCM IR	0786
K3494079	UN CD MN46 DEFL CPL 00	0350
K3615075	SCR HILO_P 3.2X 8.5HS B	0731,1601,1701,1900
K3615085	SCR HILO_P 3.2X 16 HS B	1753
K3615095	SCR HILO_P 4.2X 9.5HS B	0225
K3615105	SCR HILO_P 4.2X 13 HS B	1710
K3615125	SCR HILO_P 4.2X 16 HS B	0255
K3615135	SCR HILO_P 4.2X 25 HS B	1281
K362121	SCR D7985 M 3 X 6 S Z	0761,0931
K3621225	SCR D7985 M 3 X 8 S B	0711
K362127	SCR D7985 M 3 X 20 S Z	1702
K362154	SCR D7985 M 4 X 16 S Z	0920
K3626705	SCR D921 M 3 X 10 S B	1602
V366102	NUT D934 M 3 S Z	1703
V366103	NUT D934 M 4 S Z	0921,1903
K366158	NUT TWOLOK M 6 S Z	13
K366921	SCR I FRF M 6 VIDEOPL	0110
K367455	RVT POP D3.2 L 8 P SS	0912,0914
K367502	WSHR D6798 A 3.2 S Z	1704,1901
K367503	WSHR D6798 A 4.3 S Z	0922,1904
K367504	WSHR D6798 A 5.3 S Z	1603
K367576	WSHR D433 4.3 PL	1402
K590135	LABEL PJ USA POW INPUT 11	2101
K592994	BAG PE 400X 250	2511
K593001	BAG PE 180X 250X 0.07	2110,2510
K593096	BOX FIT PEF 2460X375	0290
V593293	BOX FIT PE 120X 70X 60	3030
V602914	COVER PLATE RS422 00	0709
K7123031	WSHR D 3.25X10 T1 Z	1754
K7123061	WSHR D 4.25X15 T1 Z	0256
K714008	SCR BVC FULL_SCRN	1400
K720689	FIX TV 31 DEGAUSSING ABS	0330
K721560	GUID PJ PCB L 97.5	0911
K721945	SPKR BOX MQ2000	1751
K7219631	CVR MN46 OCM28 CAP BLA	0223
K722092	FIX MN46 OCM28 FRM CASEDN	0254
K722093	FIX MN46 OCM28 PCB GUID	1600
K722094	HSG MN46 OCM28 CSB FIX 01	0270
K722249	HDL MN40 OCM28 HLDR 110V	0220
K723021	FRF MN46 OCM28 RGB BLL	01
K723058	HSG MN46 OCM28 DARKGRA 01	02
K732097	BCKCVR MN46 OCM28 CSSS 05	04
K7611298	UN AKWADAG 1260 TV40 2E2	0320
K7615326	UN H/V MN46 OCM28 RC 16	06
K761980	UN PARTS MN46 LABEL 00	20
K761985	UN I/O MN46 RC 07	0730
K761987	UN RGB MN46 CRT RC 05	0610
K761988	UN DEC MN46 Q/SD RC 11	0760
K7619895	UN TX MN46 USER RC 01	23
K7619939	UN SMPS MN46 110 RC 08	0930
K7741619	COIL DEG MN40 SCM28CSA	0340
K7916145	UN CSB MN46 OCM28 RC 00	1280
K801413	HDL MN40 OCM28	0221
K801446	HDL MN40 OCM28 HINGE	0222
K801525	FIX MN40 OCM28 NUT CLG	0224
K801958	BOX FIT OCM2840 EPERAN CP	3020
K802100	CSB MN46 OCM28 PANEL 09	07
K802101	FIX MN46 OCM28 SMP 07	09
K802108	FIX MN46 SCM28 B	0910
K802237	FIX MN46 OCM28 CSB PAN 03	0710
K802940	CRT ADPT K130955	03
K804068	DPL MN46 OCM28 FRF	0120
K804114	BOX 0201 745X560X687 HOH	30
K804144	BOX FIT OCM2846 SET B	3010
K804163	GRID MN46 OCM28 INOX 01	0410

OCM2846 Multidata® II RGB K9333367

ORDER NO.	DESCRIPTION	ITEM
K0330719	OPI MN46 OCM28 RGB	25
K306663	COIL DEG MN40 SCM28	0340
C312000	SPG EXTN 7 X50 /0.6 S	0321
K3261031	CD (0.75) 3 IEC_2X S 2M5	21
K344002	CD MT_2 FL P 6 320 RED	0682
K344003	CD MT_2 FL P 7 270 BLU	0651
K3440201	UN CD MTFL S 100 2XP 5	0653
K344023	CD MT_2 FL P 3 100 BLK	0652
K344063	CD MT_2 FL P12 350 BLK	0672
V348000	CBL ACC TIE B L 98 W2.5	0351
V348006	CBL ACC TIE B L140 W3.6	0341
V348063	CBL ACC CLP FLT	0913
K348083	FIX MN40 DEAUSSING & AKWA	0331
K348096	FSTNR W SADDLE LWS-A-4	0771
K3482231	UN W MN46 OCM/SCM IR	0601
K3494079	UN CD MN46 DEFL CPL 00	0350
K3615075	SCR HILO_P 3.2X 8.5HS B	0701,1601, 1900
K3615085	SCR HILO_P 3.2X 16 HS B	1753
K3615095	SCR HILO_P 4.2X 9.5HS B	0225,0254
K3615125	SCR HILO_P 4.2X 16 HS B	0253,0255
K362121	SCR D7985 M 3 X 6 S Z	0671,0681
K3621225	SCR D7985 M 3 X 8 S B	0711,0721
K362127	SCR D7985 M 3 X 20 S Z	1702
K362154	SCR D7985 M 4 X 16 S Z	0920
K3626705	SCR D921 M 3 X 10 S B	0602
V366102	NUT D934 M 3 S Z	1703
V366103	NUT D934 M 4 S Z	0921
K366921	SCR I FRF M 6 VIDEOPL	0110
K367455	RVT POP D3.2 L 8 P SS	0912,0914
K367502	WSHR D6798 A 3.2 S Z	1704,1901
K367503	WSHR D6798 A 4.3 S Z	0922
K367504	WSHR D6798 A 5.3 S Z	0603
K367576	WSHR D433 4.3 PL	0422
K593096	BOX FIT PEF 2460X375	0290
K593451	BOX 0201 726X551X596 HOH	30
V602914	COVER PLATE RS422 00	0709
K7123031	WSHR D 3.25X10 T1 Z	1754
K714008	SCR BVC FULL_SCRN	0421
K721280	FOOT TV32 FS32	0252
K721560	GUID PJ PCB L 97.5	0911
K721945	SPKR BOX MQ2000	1751
K721946	HDL MN40 OCM28 HLDR	0220
K721962	FOOT MN40 OCM28	0251
K721963	HSG MN40 DCD28 CVR CAP	0223
K722008	HSG MN40 OCM28	02
K722092	FIX MN46 OCM28 FRM CASEDN	0254
K722093	FIX MN46 OCM28 PCB GUID	1600
K722094	HSG MN46 OCM28 CSB FIX 01	0270
K723019	BCKCVR MN46 OCM28 RGB	04
K723021	FRF MN46 OCM28 RGB BLL	01
K7611298	UN AKWADAG 1260 TV40 2E2	0320
K7615326	UN H/V MN46 OCM28 RC 16	06
K7615331	UN SMPS MN46 220 OCM 04	067
K761922	UN RGB ANA MN46 MDII 02	068
K761980	UN PARTS MN46 LABEL 00	20
K761987	UN RGB MN46 CRT RC 05	065
K791901	UN S MN46 OCM28 RGB CPL	0720
K801413	HDL MN40 OCM28	0221
K801446	HDL MN40 OCM28 HINGE	0222
K801525	FIX MN40 OCM28 NUT CLG	0224
K801958	BOX FIT OCM2840 EPERAN CP	3010
K802100	CSB MN46 OCM28 PANEL 09	07
K802101	FIX MN46 OCM28 SMP 07	09
K802108	FIX MN46 SCM28 B	0910
K802237	FIX MN46 OCM28 CSB PAN 03	0710
K802940	CRT ADPT K130955	03
K804068	DPL MN46 OCM28 FRF	0120
K804072	CVR PLT MN40 OCM28	0250
K804163	GRID MN46 OCM28 INOX 01	0423

1.3 General Interconnection diagram

See next page.

1.2 Parts list on board level

SCM3346 Multidata® II IR 110 K9330939

ORDER NO.	DESCRIPTION	ITEM
K0330899	OPI MN46 OCM2846	25
K130945	CRT A80EBK221X33	03
K312008	SPG EXTN 7 X76.4/0.6 S	0311
K3130973	J MNS MCT A 3 PMF	0520
V3135035	J D ACC SCR_L U/U L 8	0611
V313799	J LS FWT P 2 PUSH	0440
K324268	SW KYBD TCT 1258 PHASE	0550
K324399	FAN 115V 10LS 24DB S 92	0410
V326111	CD (AWG18) 3 UL/IEC 2M5	2130
K344002	CD MT_2 FL P 6 320 RED	0684
K3440051	UN W MN46 COAX 700	0683
K3440052	UN W MN46 COAX 150	0688
K344007	UN W MN33 SCM46	0515
K3440232	CD MT_2 FL P 3 160 BLK	0687
K344030	UN W MN46 SCM33 FAN	0430
K3440471	CD MT_2 FL P13 800 BLK	0685
K344048	CD MT_2 FL P 7 550 BLU	0686
K344063	CD MT_2 FL P12 350 BLK	0681
K344069	UN WIRE DEG 5P L50 00	0340
K344070	UN WIRE DEG L40 00	0341
V348063	CBL ACC CLP FLT	0913
K348072	CBL ACC TIE B L500 W7.6	0212
K348086	FSTNR W SLCSE DIA 8.9	0680
K348096	FSTNR W SADDLE LWS-A-4	0530
K348216	UN W TV40 LS 60CM	0441
K3482231	UN W MN46 OCM/SCM IR	0682
K3494079	UN CD MN46 DEFL CPL 00	033
K356107	HDL FOLD 120X 90 BLK	0210
K3615075	SCR HILO_P 3.2X 8.5HS B	0641
V3619025	SCR D965 M 2.5X 6 S B	0122
K3619145	SCR D965 M 3 X 10 S B	0521
K3620305	SCR D84 M 3 X 30 S B	0421
K362077	SCR D84 M 6 X 10 S Z	2702
K3621121	SCR D7985 M 2.5X 6 S Z	0123
K362121	SCR D7985 M 3 X 6 S Z	0689
K3621225	SCR D7985 M 3 X 8 S B	0505,0613 1501
K362124	SCR D7985 M 3 X 12 S Z	0554
K3621513	SCR D7985 M 4 X 8 SCZ	1502
K3621523	SCR D7985 M 4 X 10 SCB	1401
K3621533	SCR D7985 M 4 X 12 SCZ	140
K362154	SCR D7985 M 4 X 16 S Z	0525
K3623762	SCR D933 M 8 X 25 XS B	2704
K3626705	SCR D921 M 3 X 10 S B	0603,1102, 1504
K3627325	SCR D580 M 8 S Z	2703
K363511	SCR D7971F 2.2X 9.5 S Z	0512
K3638005	SCR PT1412 1.4X 10 HS B	0516
V366102	NUT D934 M 3 S Z	0523
V366103	NUT D934 M 4 S Z	0528
K367455	RVT POP D3.2 L 8 P SS	0221,0231, 0504
K3674661	RVT POP D4 L 8.6 C AS	0211
K367502	WSHR D6798 A 3.2 S Z	0422,0507, 0522
K367503	WSHR D6798 A 4.3 S Z	0527
K367504	WSHR D6798 A 5.3 S Z	0603,1503
K367509	WSHR D 6.5 X19.5 T0.6 D	1304
V368403	SPR L 8 D 5 M 2.5 M	0121
K52600110	GRMT T0.5 CONT_SOL L10	024
K592994	BAG PE 400X 250	2001
K593001	BAG PE 180X 250X 0.07	27
K593499	BOX FIT CORNER L PVC 37X3	302
K5976016	OPI MN46 RS422 PROTOCOL	2500
V601349	CENTER PLATE SCM33** 00	1300,1301
V602937	HSG MN46 SCM33 CONT_P 00	05
V602938	FIX MN46 RS422 01	0612
V602939	BCKCVR MN46 SCM33 IR 01	04
V604001	PLT FAN SCM33 CPL $$$ 00	0420
V622166	FRF MN46 SCM33 $$$ 00	01
V622181	DPL ILLUM SCM3346 00	0111
K7123035	WSHR D 3.25X10 T1 B	0553
K721560	GUID PJ PCB L 97.5	022 ,0503
K721834	BTN T CNTR DCD2740	0511
K722232	SCR BSC ISO M 3	0552
K733004	PALLET MN33 68 01	30
K733005	BOX FIT BOARD 660X895 02	3003
K7615191	UN AKWADAG(1400) 2E2 SC	0310
K7615328	UN H/V MN46 SCM33 RC 05	06
K761980	UN PARTS MN46 LABEL 00	2100
K761985	UN I/O MN46 RC 07	064
K761986	UN I/O MN46 SVHS RC 00	0551
K761987	UN RGB MN46 CRT RC 05	065
K761988	UN DEC MN46 Q/SD RC 11	068
K7619895	UN TX MN46 USER RC 01	2600
K7619939	UN SMPS MN46 110 RC 08	067
K761995	UN DSPL MN46 SCM RC 01	012
K761996	UN RS422 MN46 SCM RC 00	0610
K7742209	COIL DEG 33" SINGLE	034
K791905	UN S MN46 SCM33 RC	0510
K802108	FIX MN46 SCM28 B	0502
K802885	HSG MN46 SCM33 BTM SLD 03	0500
K802942	HSG MN46 SCM33 GUID FRM	0501
K802943	HSG MN46 SCM33 FIX FRM A	150
K804034	SCR MN46 SCM33 CRT FIX	1302
K804059	BOX0200MN33DN 882X647X300	3001
K804062	BOX FIT SCM3346 CORN DN02	3005
K804063	BOX FIT SCM3346 CORN DN02	3007
K804064	BOX 0200 UP 900X665X728 H	3002
K804065	BOX FIT SCM3346 CORN UP02	3010
K804084	HSG MN46 SCM33 FIX PLT	2701
K804085	HSG MN46 SCM33 SCRN DEG	023
K804086	BOX FIT SCM3346 CORN DN02	3006
K804087	BOX FIT SCM3346 CORN DN02	3004
K804088	BOX FIT SCM3346 CORN UP02	3011
K804089	BOX FIT SCM3346 CORN UP02	3008
K804090	BOX FIT SCM3346 CORN UP02	3009
K804104	WSHR D 6.25X20 T3	1304
K804158	HSG SCM33 MN46/50 CPL	02
K804171	NPL MN46 SCM33 II FRF 01	0110

HOW TO USE THIS LIST:

This list contains information about all the connectors you can find in the Multidata® II: connectors on the input board as well as the connectors on the boards inside the set.

The titles in the left column indicate the two boards on which you can find that particular connector (e.g., Input board and Decoder board).
The titles also indicate the name code of the connectors, as they are indicated on the boards and the schematic diagrams (e.g., J1).

In the right column, you can find the colour code of that particular connector (e.g. black) and its general function (e.g. analog RGB connector).
In the same column, you can find the pin numbers of the connector (e.g.1), the direction in which the signal, connected to that particular pin runs (e.g., -->), the name of that particular signal (e.g., VSA GND) and its description (e.g., vert sync of analog:ground).

INPUT (J44)—> DECODER (J9)

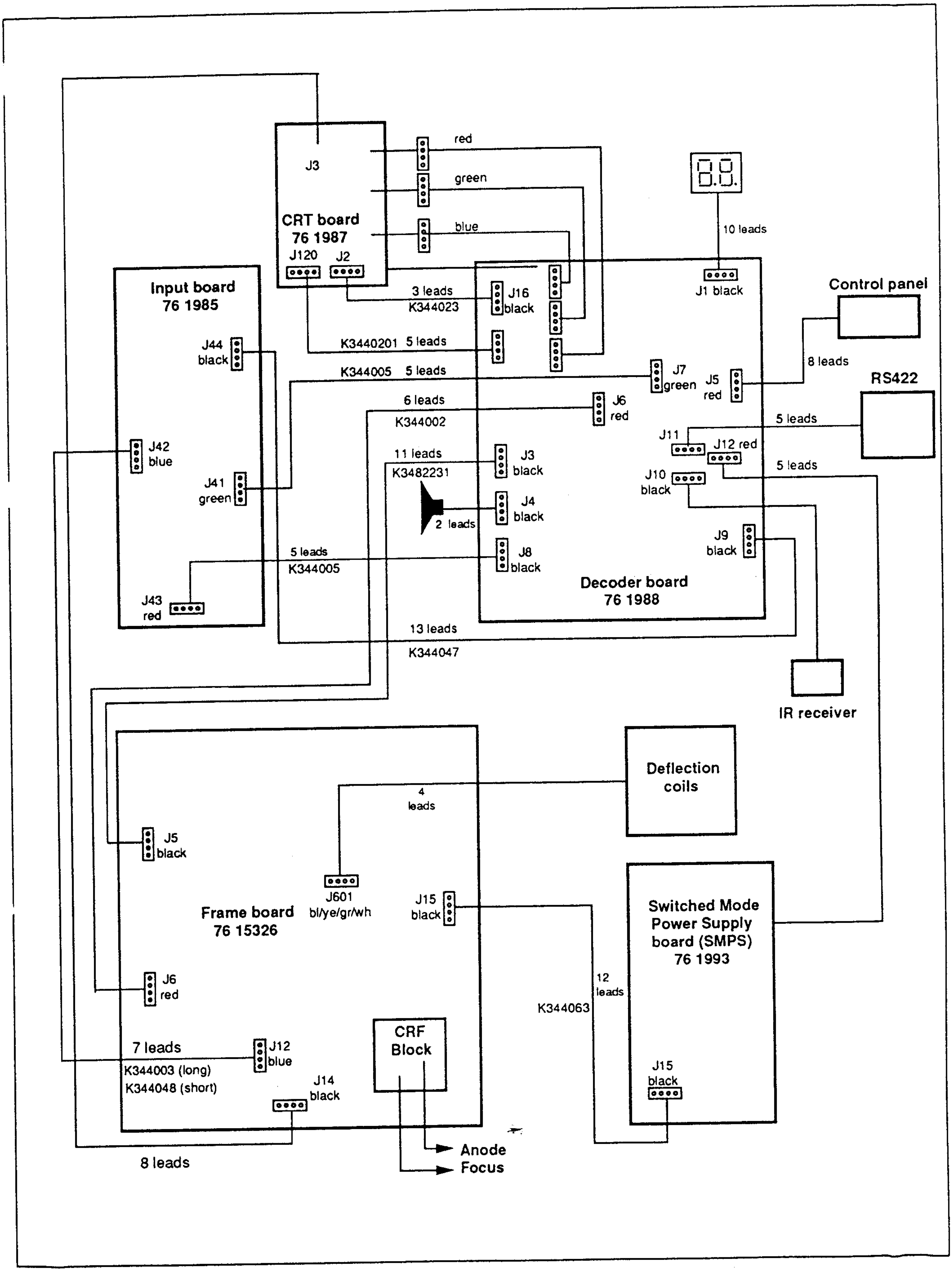
BLACK

1 <— SCL : clock from I^2C bus
2 <— SDA : data from I^2C bus
3 <— +5V
4 <— +26V
5 —> HUE : adjust voltage from IC9
6 <— SC : sandcastle for TDA 3505
7 —> SVHS ON/OFF : switching voltage for µprocessor if VID2 source is video or SVHS input
8 —> VID OUT
9 GND
10 —> CHR SVHS : chroma
11 <— +12V
12 —> SYNC OUT PRIORITY: signal coming from the source with priority
13 —> VERT SYNC : vertical sync

INPUT (J41) —> DECODER (J7)

GREEN shielded connector

1 —> SYNC OUT : hor sync for sync separator on frame board
2 —> G : green for power amplifier
3 GND
4 —> R : red for power amplifier
5 —> B : blue for power amplifier


J3
CRT board
76 1987
J120
J2
red
green
blue
10 leads
J1 black
Control panel
Input board
76 1985
J44
black
J42
blue
J41
green
J43
red
3 leads
K344023
J16
black
K3440201
5 leads
K344005
5 leads
J7
green
J5
red
8 leads
RS422
6 leads
K344002
J6
red
5 leads
J11
J12 red
5 leads
11 leads
K3482231
J3
black
J10
black
J4
black
2 leads
J9
black
5 leads
K344005
J8
black
Decoder board
76 1988
13 leads
K344047
IR receiver
Deflection
coils
4
leads
J5
black
J601
bl/ye/gr/wh
J15
black
Frame board
76 15326
Switched Mode
Power Supply
board (SMPS)
76 1993
J6
red
12
leads
K344063
CRF
Block
7 leads
K344003 (long)
K344048 (short)
J12
blue
J14
black
J15
black
8 leads
Anode
Focus

DECODER (J6) —>
FRAME (J6)

RED : amplitude controls and shift controls

1	—>	VAMP	: vertical amplitude
2	—>	HAMP	: horizontal amplitude
3	—>	SHIFT	: horizontal phase control
4		GND	
5	<—	HS/CS	: horizontal/composite sync, separated from TDA 2595
6	—>	VSYNC	: vertical sync pulse after phase control

DECODER J16) —>
CRT BOARD (J2)

BLACK

1	—>	+12V	
2	—>	VERT PULSE	: pulse indicating that ABL measurement is taking place
3	—>		: pulse indicating: current measurement or leakage measurement

DECODER (J15) —>
CRT BOARD (J120)

BLACK (shielded)

1	<—		: brightness with ABL for R
2	—>	BRIGHT	: brightness
3		GND	
4	<—		: brightness with ABL for G
5	<—		: brightness with ABL for B

DECODER (J1)—>
LED DISPLAY (J2)

BLACK

1	—>	: multiplex line for right display
2	—>	: multiplex line for LEFT display
3	—>	: segment of the display
4	—>	: segment of the display
5	—>	: segment of the display
6	—>	: segment of the display
7	—>	: segment of the display
8	—>	: segment of the display
9	—>	: segment of the display
10	—>	: segment of the display

INPUT (J42) —> FRAME (J12)

BLUE

1		NC	
2		NC	
3		GND	
4		GND	
5	—>	USB	: underscan bottom - in case of selection of underscan : forced to ground
6	<—	UST	: underscan top : is high for the lowest frequencies
7		NC	

INPUT (J43)—> DECODER (J8)

RED shielded connector

1	<—	B-Y	: colour difference
2	<—	R-Y	: colour difference
3		GND	
4	<—	Y	: luminance
5	—>	AUDIO	: audio to power amplifier

DECODER (J4) —> LOUDSPEAKER

BLACK : loudspeaker connection

1	—>	LS	: loudspeaker signal
2	—>	GND	

DECODER (J3) —> FRAME (J5)

GREEN : Input and pulses

1	—>	SYNC	: the sync for the sync separator (open collector - 180 E)
2	<—	HOR PULS	: horizontal fly-back pulse 5 V
3	<—	+ 26 V	
4	<—	+ 8 V	
5		GND	
6		GND	
7	<—	+ 16 V	
8	<—	BCL	: beam current limit
9	<—	SC	: sandcastle
10	<—	T2	: vertical blanking pulse
11	<—	T1	: short pulse at the start of vertical deflection

DECODER (J5) —> KEYBOARD

RED

1 —> : scan line for keyboard : becomes low at test
2 —> : scan line for keyboard : becomse low at test
3 —> : scan line for keyboard : becomes low at test
4 —> : scan line for keyboard : becomes low at test
5 <— : input line for keyboard
6 <— : input line for keyboard
7 <— : input line for keyboard
8 <— : input line for keyboard

DECODER (J10)—> IR RECEIVER (J1)

BLACK

1 —> +12V
2 GND
3 —> +5V
4 <— IR SIGNAL : high at rest

DECODER (J12) —> SMPS

RED

1 <— +5V : for µprocessor and peripherie
2 —> +12V
3 —> DEGAUSSING : at degaussing: low
4 GND : video input
5 —> STANDBY : in stand-by: low (switches ofF the SMPS)

DECODER (J11)—> RS422 (J3)

(still to define)

1 <— RXD
2 —> TXD
3 —> GND
4 —> +5V
5 <-> INPUT GATE

CRT BOARD —>
DECODER

3 X (R: J114 <- J17, B: J116 <- J20, G: J118 <- J23)

1 <— R out GND / G out GND / B out GND
2 <— R out / G out / B out
3
4
5 NC

FRAME (J14)—>
CRT BOARD (J3)

BLACK : Inputs for output stage and picture tube

1 —> + 165 V : input for output stage
2 —> + 12 : input for output stage
3 —> AQUADAG : ground
4 —> VF2 : filament input
5 —> VF1 :
6 —> VG1 : g1 voltage
7
8 —> VG2 : g2 voltage

SMPS (J15) —>
FRAME (J15)

BLACK : Inputs

1 —> + 105
2 —> + 105
3 —> + 165
4 —> + 165
5 —> + 26
6 —> + 26
7 —> + 16
8 —> + 16
9 —> + 8
10 —> + 8
11 —> + GND
12 —> + GND

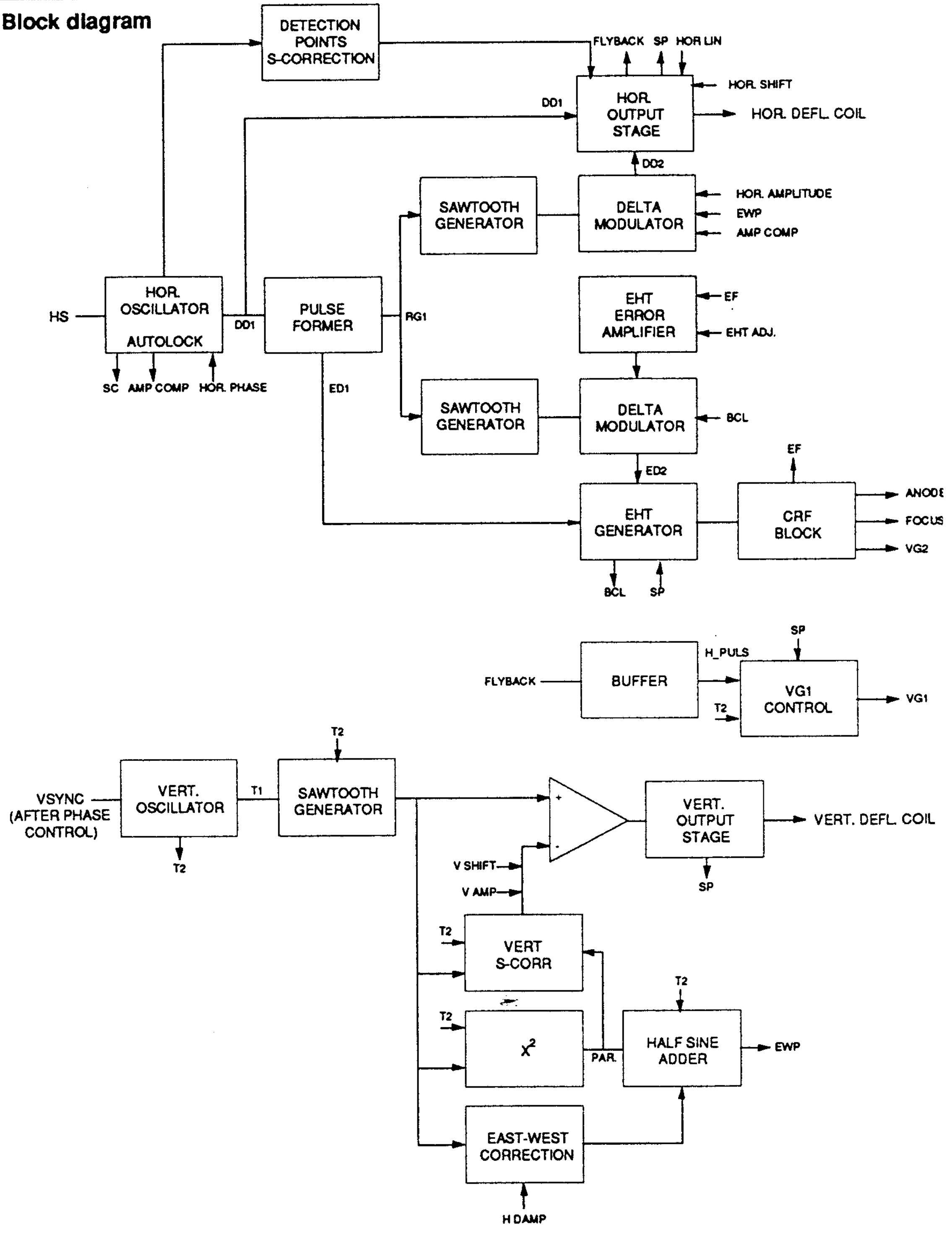
2.1 FRAME BOARDS

Important: the diagrams in this chapter correspond to Printed Circuit Board **K716560**. This PCB is used in the following units:

K7615325
K7615326
K7615328

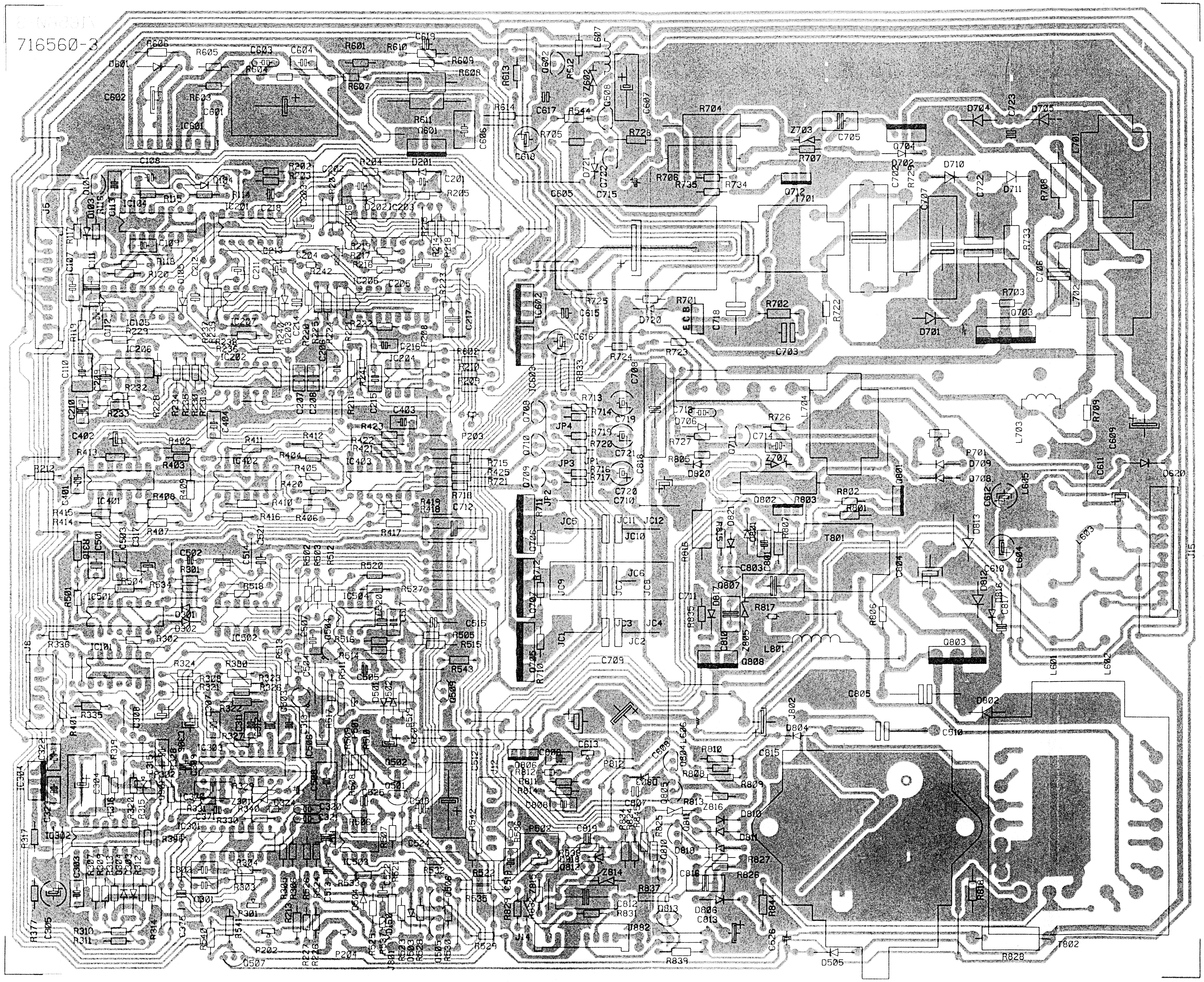
Please refer to the detailed parts lists of these units in the back of this chapter.

Block diagram


DETECTION POINTS S-CORRECTION
FLYBACK
SP
HOR LIN
HOR. SHIFT
DD1
HOR. OUTPUT STAGE
HOR. DEFL. COIL
DD2
SAWTOOTH GENERATOR
DELTA MODULATOR
HOR. AMPLITUDE
EWP
AMP COMP
HS
HOR. OSCILLATOR AUTOLOCK
DD1
PULSE FORMER
RG1
EHT ERROR AMPLIFIER
EF
EHT ADJ.
SC
AMP COMP
HOR. PHASE
ED1
SAWTOOTH GENERATOR
DELTA MODULATOR
BCL
ED2
EF
EHT GENERATOR
CRF BLOCK
ANODE
FOCUS
VG2
BCL
SP
SP
H_PULS
FLYBACK
BUFFER
T2
VG1 CONTROL
VG1
T2
VSYNC (AFTER PHASE CONTROL)
VERT. OSCILLATOR
T1
SAWTOOTH GENERATOR
T2
+
-
VERT. OUTPUT STAGE
VERT. DEFL. COIL
SP
V SHIFT
V AMP
T2
VERT S-CORR
T2
T2
x^2
PAR.
HALF SINE ADDER
EWP
EAST-WEST CORRECTION
H DAMP

1.5 General Block Diagram

See next page.

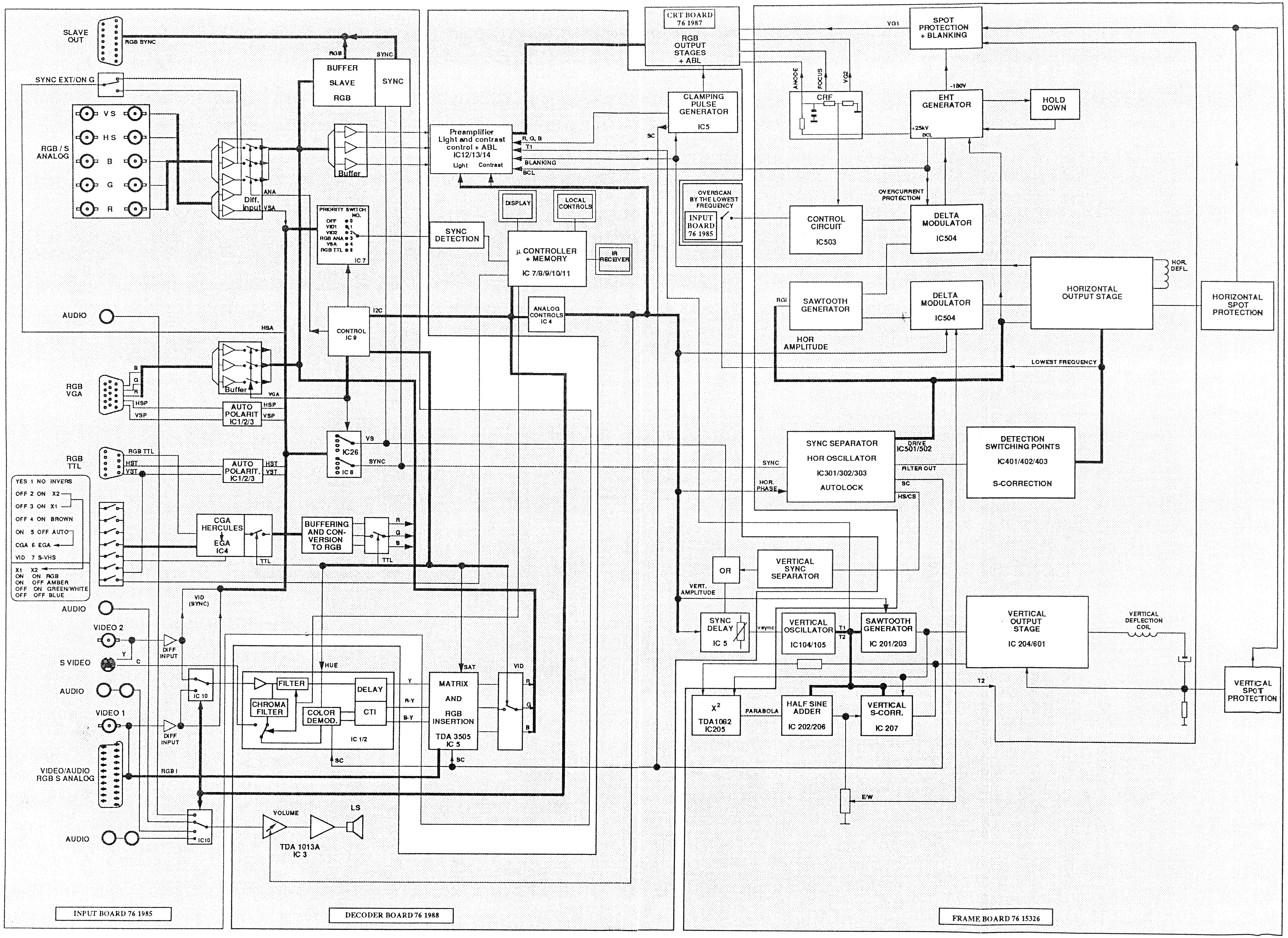

716560-3
J5
J6
J15
T701
T801
T802
L801
Q803
D602

This PCB is used in unit no.
K7615325,K7615326

Name FRAME BOARD	PC B no. K716560

Date 25/06/92	Drawn RIP	Checked RIP

Video & Communications


SLAVE OUT
RGB SYNC
SYNC EXT/ON G
RGB / S ANALOG
VS
HS
B
G
R
AUDIO
RGB VGA
HSP
VSP
RGB TTL
HST
VST
YES 1 NO INVERS
OFF 2 ON X2
OFF 3 ON X1
OFF 4 ON BROWN
ON 5 OFF AUTO
CGA 6 EGA
VID 7 S-VHS
X1 X2
ON ON RGB
ON OFF AMBER
OFF ON GREEN/WHITE
OFF OFF BLUE
VIDEO 2
S VIDEO
VIDEO 1
DIFF INPUT
IC 10
VIDEO/AUDIO RGB S ANALOG
RGB I
INPUT BOARD 76 1985
BUFFER SLAVE RGB
SYNC
Buffer
Diff. input
ANA
VSA
HSA
PRIORITY SWITCH NO.
OFF 0
VID1 1
VID2 2
RGB ANA 3
VSA 4
RGB TTL 5
IC 7
CONTROL IC 9
I2C
AUTO POLARIT IC1/2/3
IC26
IC 8
VS
VGA
CGA HERCULES EGA IC4
TTL
BUFFERING AND CONVERSION TO RGB
R
G
B
VID (SYNC)
HUE
SAT
FILTER
CHROMA FILTER
DELAY
COLOR DEMOD.
CTI
IC 1/2
Y
R-Y
B-Y
MATRIX AND RGB INSERTION
TDA 3505 IC 5
SC
VID
VOLUME
LS
TDA 1013A IC 3
DECODER BOARD 76 1988
Preamplifier Light and contrast control + ABL IC12/13/14
Light
Contrast
R, G, B
T1
BLANKING
BCL
SYNC DETECTION
DISPLAY
LOCAL CONTROLS
μ CONTROLLER + MEMORY IC 7/8/9/10/11
IR RECEIVER
ANALOG CONTROLS IC 4
CRT BOARD 76 1987
RGB OUTPUT STAGES + ABL
CLAMPING PULSE GENERATOR IC5
OVERSCAN BY THE LOWEST FREQUENCY
INPUT BOARD 76 1985
ANODE
FOCUS
VG2
VG1
CRF
SPOT PROTECTION + BLANKING
EHT GENERATOR
-180V
+25kV
HOLD DOWN
OVERCURRENT PROTECTION
CONTROL CIRCUIT IC503
DELTA MODULATOR IC504
HOR. DEFL.
HORIZONTAL OUTPUT STAGE
HORIZONTAL SPOT PROTECTION
RGI
SAWTOOTH GENERATOR
HOR AMPLITUDE
LOWEST FREQUENCY
SYNC SEPARATOR
HOR OSCILLATOR
IC301/302/303
AUTOLOCK
DRIVE IC501/502
FILTER OUT
HS/CS
HOR. PHASE
DETECTION SWITCHING POINTS IC401/402/403
S-CORRECTION
OR
VERTICAL SYNC SEPARATOR
VERT. AMPLITUDE
SYNC DELAY IC 5
Vsync
VERTICAL OSCILLATOR IC104/105
T1
T2
SAWTOOTH GENERATOR IC 201/203
VERTICAL OUTPUT STAGE IC 204/601
VERTICAL DEFLECTION COIL
VERTICAL SPOT PROTECTION
X²
TDA1082 IC205
PARABOLA
HALF SINE ADDER IC 202/206
VERTICAL S-CORR. IC 207
E/W
FRAME BOARD 76 15326

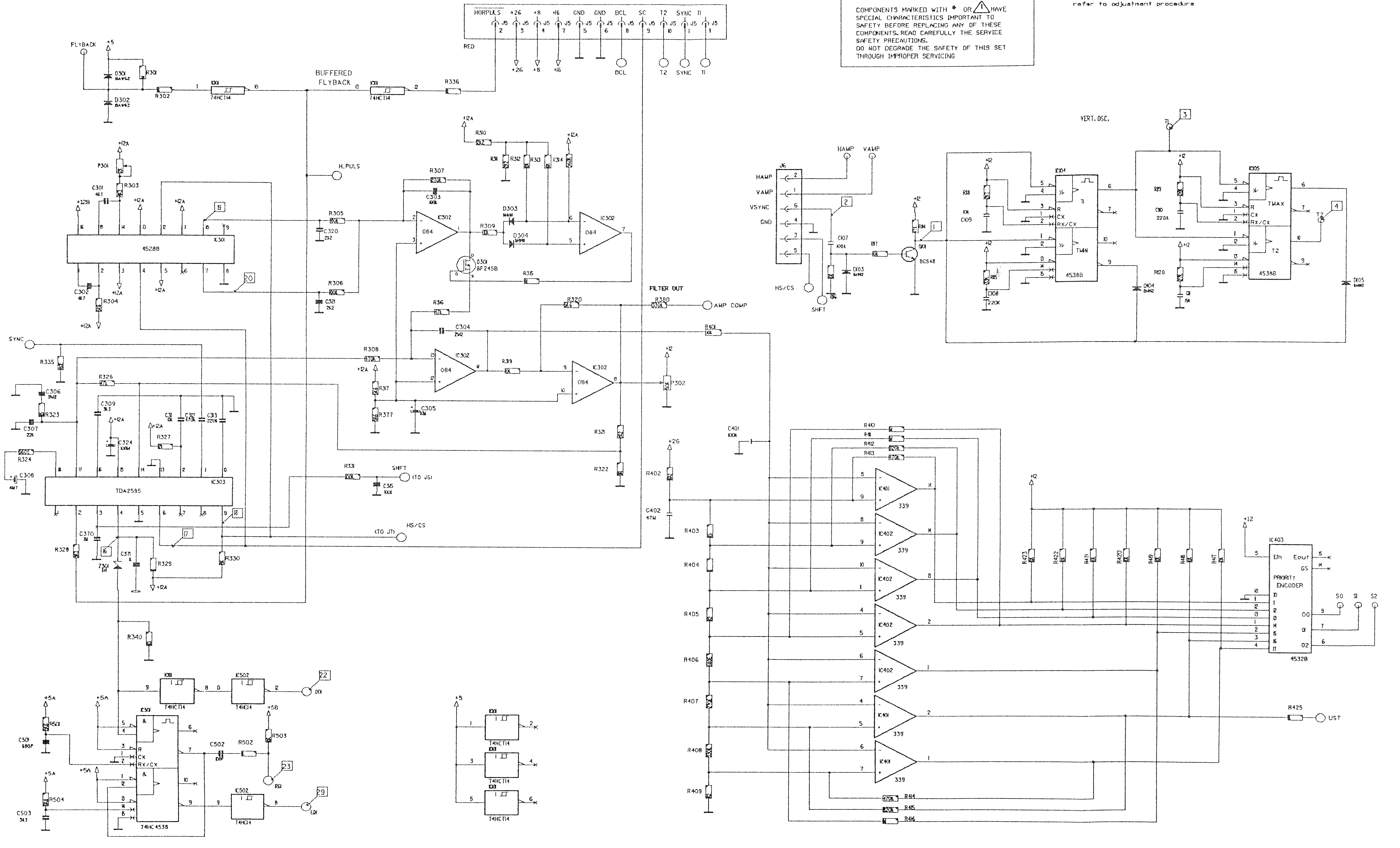
Sheet 1

BARCO

PRODUCT SAFETY NOTICE

COMPONENTS MARKED WITH * OR ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT TO SAFETY BEFORE REPLACING ANY OF THESE COMPONENTS. READ CAREFULLY THE SERVICE SAFETY PRECAUTIONS.
DO NOT DEGRADE THE SAFETY OF THIS SET THROUGH IMPROPER SERVICING

The symbols 3 refer to adjustment procedure


HORPULS
+26
+8
+16
GND
GND
BCL
SC
T2
SYNC
T1
J5
RED
FLYBACK
+5
D301
D302
R301
R302
IC101
74HCT14
BUFFERED FLYBACK
R336
H.PULS
P301
R303
C301
4528B
IC301
R304
C302
R305
R306
C320
C321
R307
C303
IC302
084
R309
Q301
BF245B
R315
R316
C304
D303
D304
R310
R311
R312
R313
R314
R320
R380
FILTER OUT
AMP COMP
R401
R308
R317
R377
C305
R319
P302
R321
R322
SYNC
R335
R326
C306
R323
C307
C309
C324
R327
R324
C308
TDA2595
IC303
C370
C371
Z301
R328
R329
R330
R331
SHFT
(TO J6)
C315
(TO J7)
HS/CS
R340
IC502
74HC14
IC501
74HC4538
R501
C501
R504
C503
C502
R502
R503
VERT. OSC.
HAMP
VAMP
VSYNC
GND
J6
C107
D103
R111
Q101
BC548
R118
CK9
C108
IC104
45388
TI
TWIN
R119
C110
IC105
TMAX
T2
R120
D104
D105
C401
R402
C402
R403
R404
R405
R406
R407
R408
R409
R410
R411
R412
R413
IC401
IC402
339
R414
R415
R416
R417
R418
R419
R420
R421
R422
R423
IC403
PRIORITY ENCODER
45328
S0
S1
S2
R425
UST

This PCB is used in unit no.
K7815325,K7815326

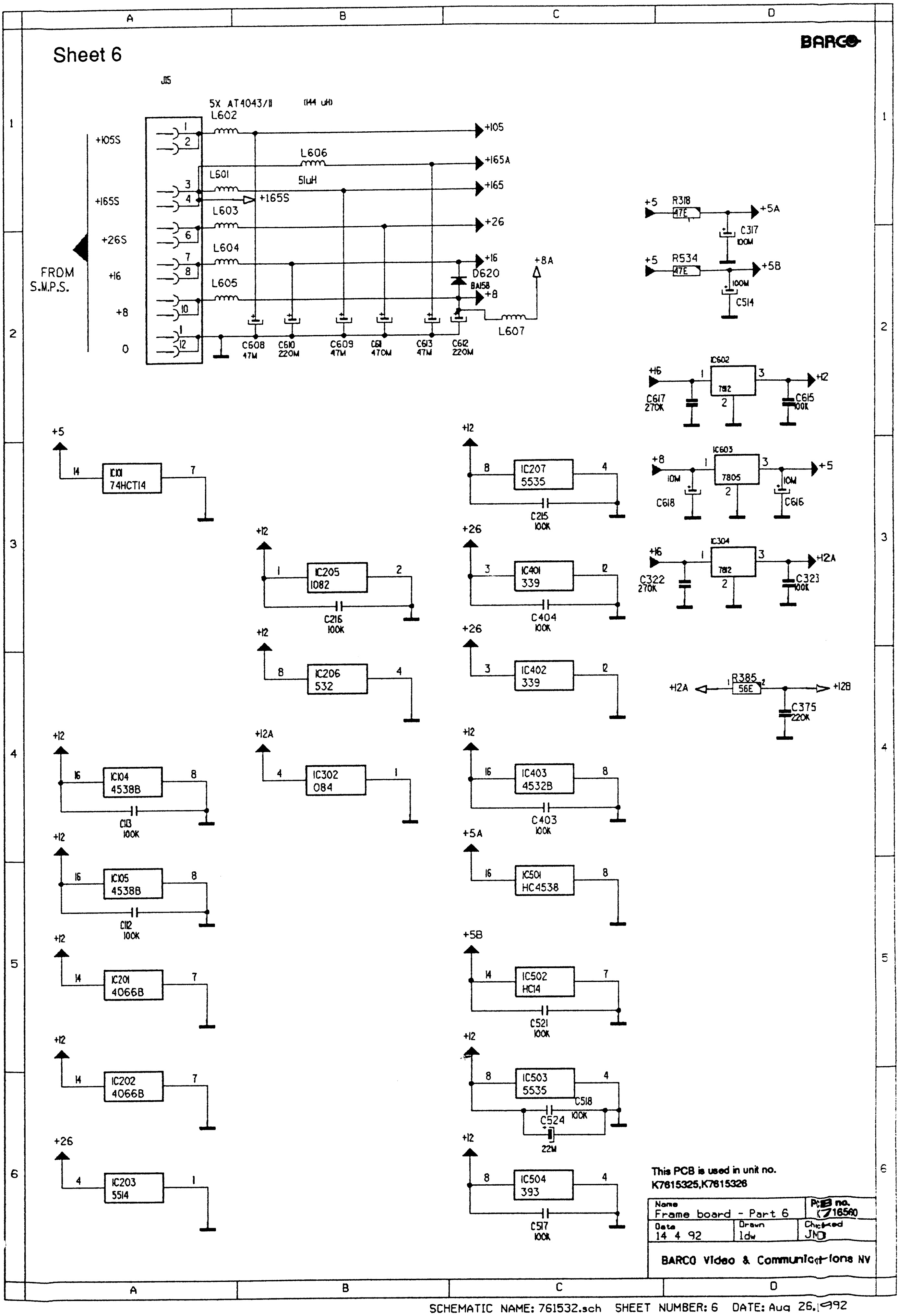
Modifications reserved

Name Frame board - Part I	K716560
Date 14-4-92	Drawn ldw
	Checked JMD

BARCO Video & Communications NV

SCHEMATIC NAME: 781532.sch SHEET NUMBER: 1 DATE: Aug 26, 1992

Sheet 6

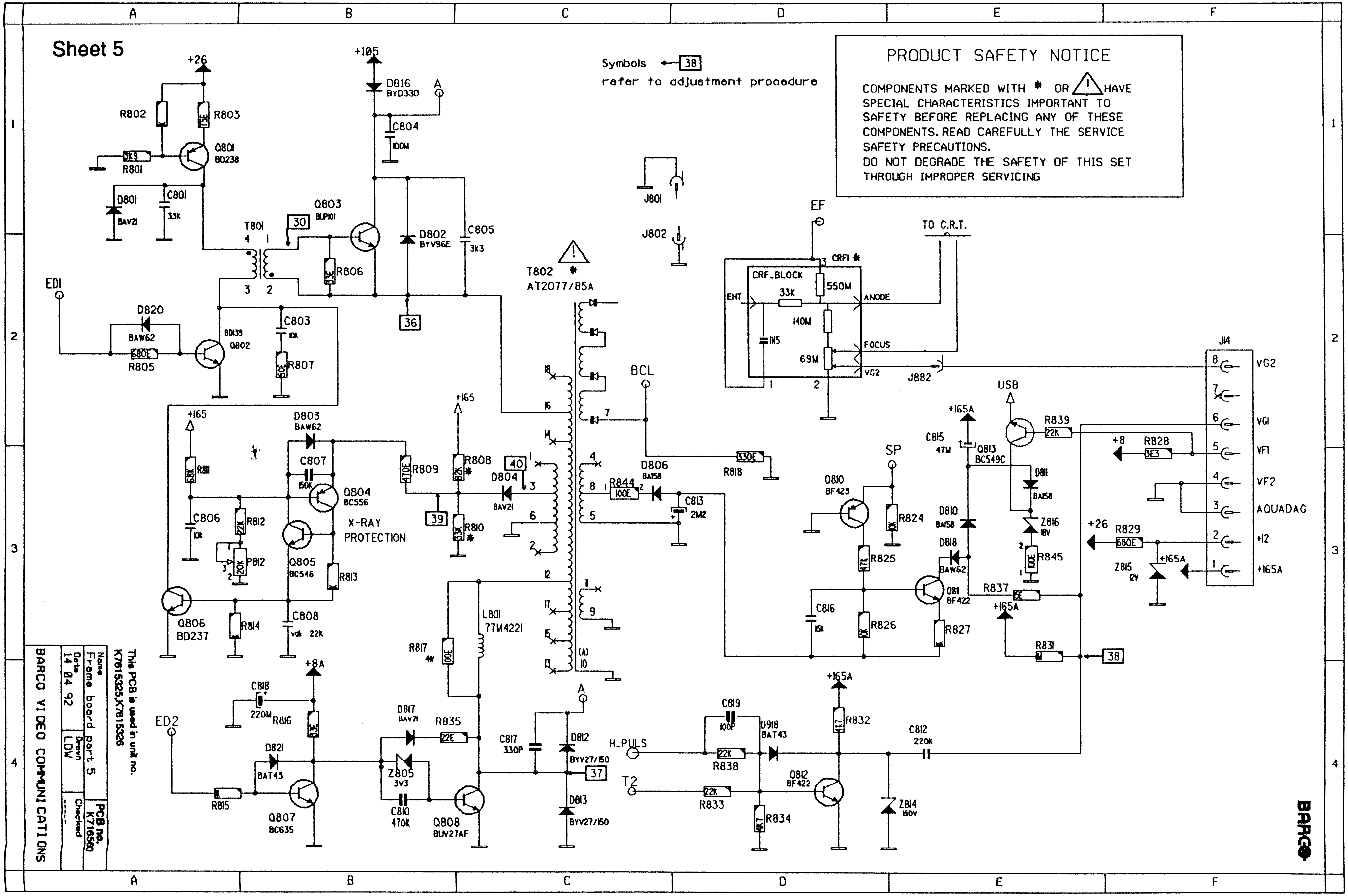

BARCO
A
B
C
D
1
2
3
4
5
6
J15
5X AT4043/II
(144 uH)
L602
L606
L601
51uH
L603
L604
L605
L607
+105S
+165S
+26S
+16
+8
0
FROM
S.M.P.S.
+105
+165A
+165
+165S
+26
+16
+8
+8A
D620
BA158
C608
47M
C610
220M
C609
47M
C611
470M
C613
47M
C612
220M
+5
R318
47E
+5A
C317
100M
R534
47E
+5B
100M
C514
+16
IC602
7812
+12
C617
270K
C615
100K
+8
IC603
7805
+5
10M
C618
C616
IC304
7812
+12A
C322
270K
C323
100K
R385
56E
+12B
C375
220K
IC101
74HCT14
IC104
4538B
C113
100K
IC105
4538B
C112
100K
IC201
4066B
IC202
4066B
+26
IC203
5514
IC205
1082
C216
100K
IC206
532
IC302
084
IC207
5535
C215
100K
IC401
339
C404
100K
IC402
339
IC403
4532B
C403
100K
IC501
HC4538
IC502
HC14
C521
100K
IC503
5535
C518
100K
C524
22M
IC504
393
C517
100K

This PCB is used in unit no.
K7615325,K7615326

Name Frame board - Part 6		PCB no. K716560
Date 14 4 92	Drawn ldw	Checked JMD
BARCO Video & Communications NV		

SCHEMATIC NAME: 761532.sch SHEET NUMBER: 6 DATE: Aug 26,1992

Sheet 5


A
B
C
D
E
F
1
2
3
4
+26
R802
R803
Q801
BD238
3K9
R801
D801
BAV21
C801
33K
T801
4 1
3 2
30
Q803
BUP101
R806
+105
D816
BYD330
A
C804
100M
D802
BYV96E
C805
3K3
36
ED1
D820
BAW62
680E
R805
BD139
Q802
C803
10K
R807
+165
R811
68K
C806
10K
R812
22K
P812
20K
D803
BAW62
C807
150K
Q804
BC556
X-RAY
PROTECTION
Q805
BC546
R813
Q806
BD237
R814
C808
22K
R809
470E
+165
R808
82K
40
D804
BAV21
39
R810
33K
T802
AT2077/85A
BCL
R844
100E
D806
BAI58
C813
2M2
R818
330E
L801
77M4221
R817
300E
4W
ED2
+8A
C818
220M
R816
D821
BAT43
R815
Q807
BC635
D817
BAV21
R835
22E
Z805
3V3
C810
470K
Q808
BUV27AF
C817
330P
D812
BYV27/150
37
D813
BYV27/150
J801
J802
EF
CRF1
CRF_BLOCK
EHT
33K
1N5
560M
140M
69M
ANODE
FOCUS
VG2
TO C.R.T.
J882
SP
Q810
BF423
R824
R825
47K
C816
15K
R826
H_PULS
T2
C819
100P
R838
22K
D918
BAT43
R833
22K
R834
4K7
+165A
R832
4K7
Q812
BF422
C812
220K
Z814
150V
USB
C815
47M
Q813
BC549C
R839
22K
D811
BAI58
D810
BAI58
Z816
18V
R845
300E
D818
BAW62
Q811
BF422
R827
R837
R831
38
+8
R828
3E3
+26
R829
680E
Z815
12V
J14
VG2
VG1
VF1
VF2
AQUADAG
+12
+165A
BARCO

PRODUCT SAFETY NOTICE

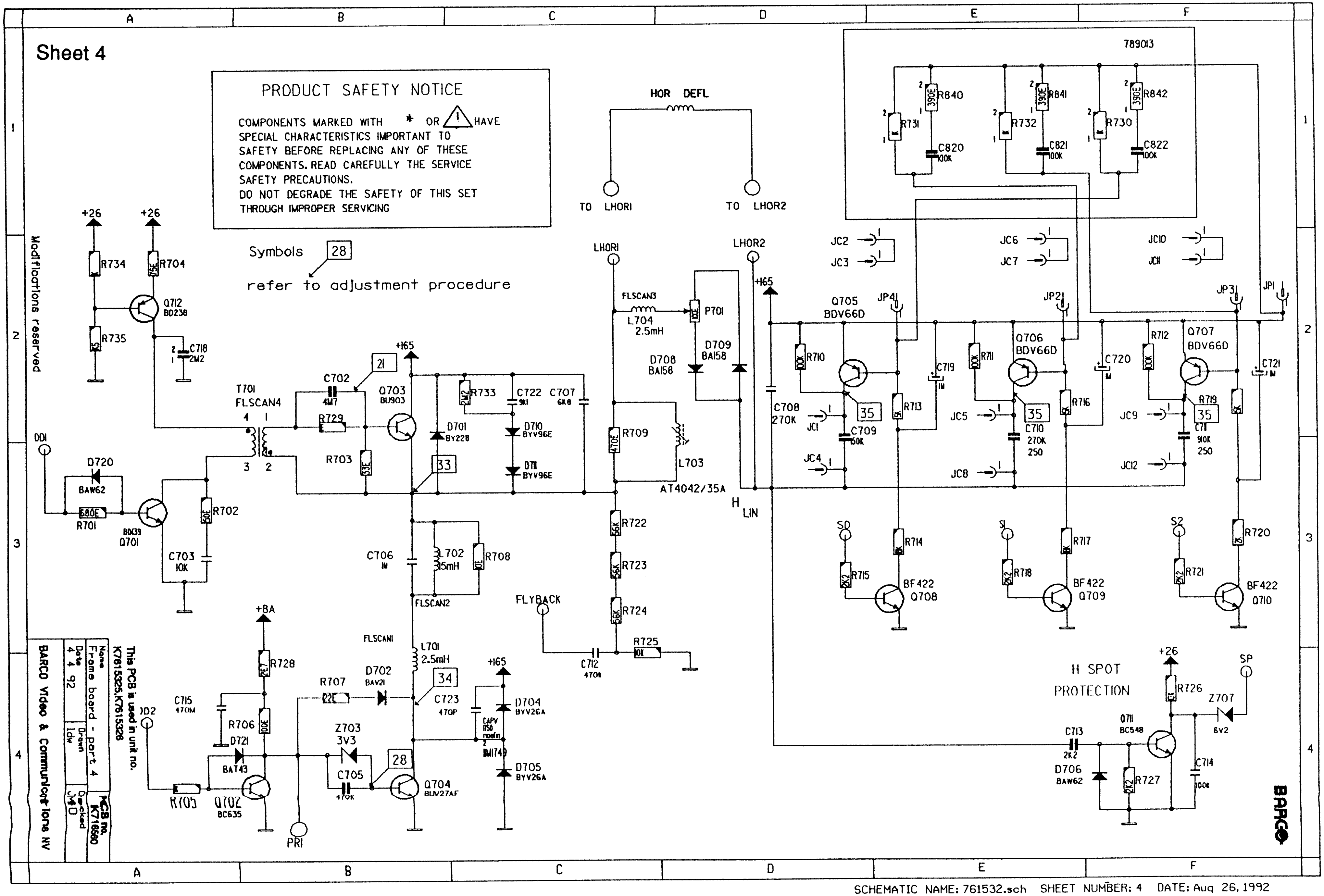
COMPONENTS MARKED WITH * OR ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT TO SAFETY BEFORE REPLACING ANY OF THESE COMPONENTS. READ CAREFULLY THE SERVICE SAFETY PRECAUTIONS.
DO NOT DEGRADE THE SAFETY OF THIS SET THROUGH IMPROPER SERVICING

Symbols ← 38
refer to adjustment procedure

This PCB is used in unit no.
K7615325,K7615326

Name		PCB no.
Frame board part 5		K716560
Date	Drawn	Checked
14 04 92	LDW	-----

BARCO VIDEO COMMUNICATIONS


A
B
C
D
E
F
1
2
3
4
HOR DEFL
TO LHOR1
TO LHOR2
LHOR1
LHOR2
+26
R734
R704
Q712
BD238
R735
C718
2M2
T701
FLSCAN4
DD1
D720
BAW62
680E
R701
BD139
Q701
R702
C703
10K
C702
4M7
21
R729
R703
33E
+165
Q703
BU903
33
D701
BY228
R733
2M2
C722
9K1
D710
BYV96E
D711
BYV96E
C707
6K8
C706
1M
L702
15mH
R708
FLSCAN2
FLSCAN3
L704
2.5mH
P701
D708
BA158
D709
BA158
R709
470E
L703
AT4042/35A
H LIN
R722
56K
R723
56K
R724
56K
R725
10K
FLYBACK
C712
470K
+BA
R728
2E7
C715
470M
R706
300E
D721
BAT43
DD2
R705
Q702
BC635
FLSCAN1
L701
2.5mH
R707
22E
D702
BAV21
34
C723
470P
Z703
3V3
C705
470K
28
Q704
BUV27AF
PR1
D704
BYV26A
D705
BYV26A
CAPV
1N4749
789013
R731
R840
390E
C820
100K
R732
R841
390E
C821
100K
R730
R842
390E
C822
100K
JC2
JC3
JC6
JC7
JC10
JC11
JP4
JP2
JP3
JP1
Q705
BDV66D
R710
100K
JC1
C709
150K
35
JC4
R713
5K
C719
1M
C708
270K
Q706
BDV66D
R711
100K
JC5
C710
270K
250
JC8
R716
5K
C720
1M
Q707
BDV66D
R712
100K
JC9
R719
C711
910K
250
JC12
C721
1M
S0
R715
2K2
R714
BF422
Q708
S1
R718
2K2
R717
BF422
Q709
S2
R721
2K2
R720
BF422
Q710
H SPOT PROTECTION
+26
R726
SP
Z707
6V2
Q711
BC548
C713
2K2
D706
BAW62
R727
2K2
C714
100K
BARCO

Sheet 4

PRODUCT SAFETY NOTICE

COMPONENTS MARKED WITH * OR ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT TO SAFETY BEFORE REPLACING ANY OF THESE COMPONENTS. READ CAREFULLY THE SERVICE SAFETY PRECAUTIONS.
DO NOT DEGRADE THE SAFETY OF THIS SET THROUGH IMPROPER SERVICING

Symbols 28 refer to adjustment procedure

Modifications reserved

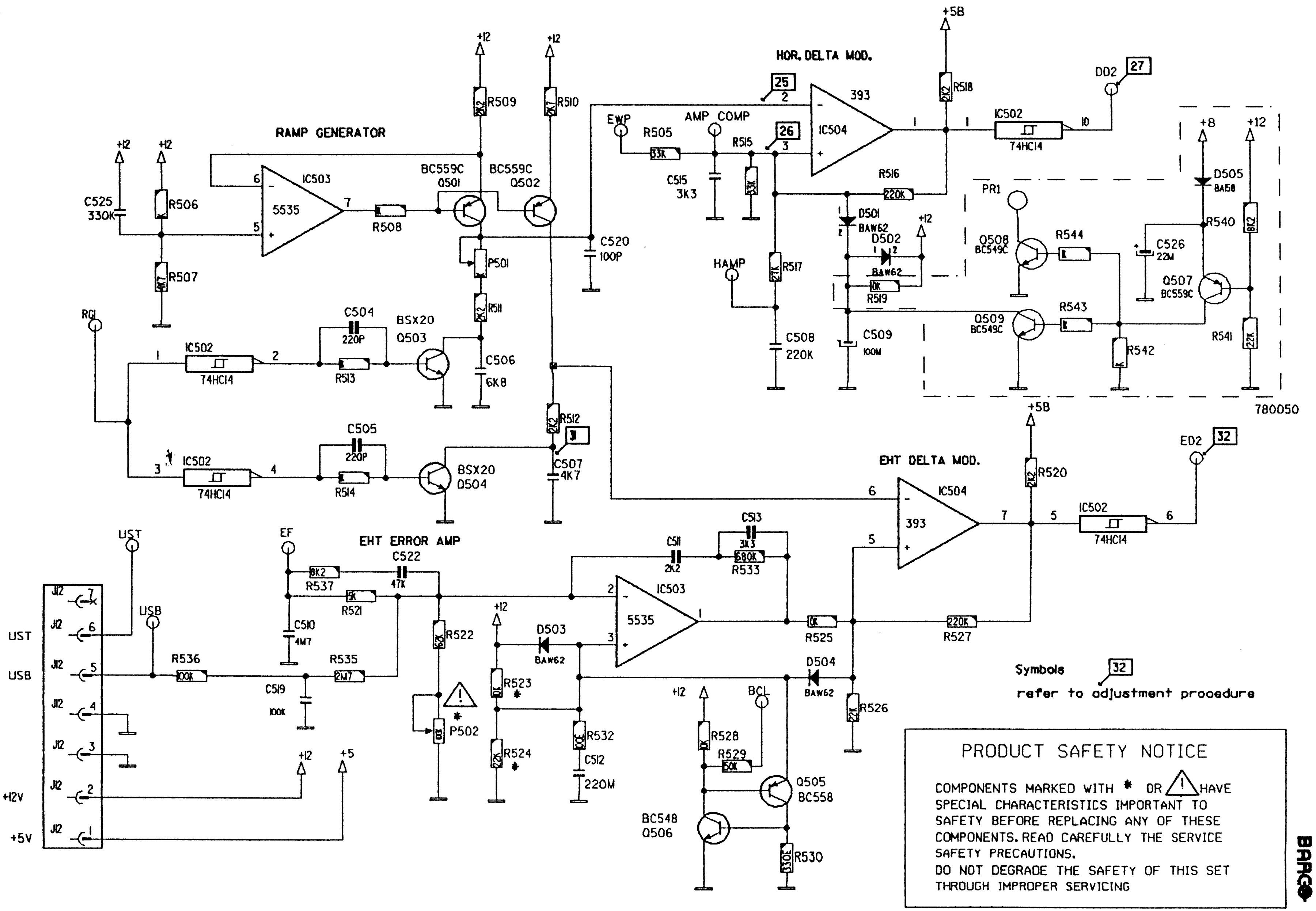
This PCB is used in unit no.
K7615325,K7615326

Name		PCB no.
Frame board - part 4		K716560
Date 4 4 92	Drawn ldw	Checked JMD

BARCO Video & Communications NV

SCHEMATIC NAME: 761532.sch SHEET NUMBER: 4 DATE: Aug 26, 1992

Sheet 3


RAMP GENERATOR
HOR. DELTA MOD.
EHT DELTA MOD.
EHT ERROR AMP
IC503 5535
IC504 393
IC502 74HC14
BC559C Q501
BC559C Q502
BSX20 Q503
BSX20 Q504
Q505 BC558
BC548 Q506
Q507 BC559C
Q508 BC549C
Q509 BC549C
D501 BAW62
D502 BAW62
D503 BAW62
D504 BAW62
D505 BA158
C525 330K
C504 220P
C505 220P
C506 6K8
C507 4K7
C508 220K
C509 100M
C510 4M7
C511 2K2
C512 220M
C513 3K3
C515 3K3
C519 100K
C520 100P
C522 47K
C526 22M
R505 33K
R506
R507 4K7
R508
R509 2K2
R510 2K7
R511 2K2
R512 2K2
R513
R514
R515 33K
R516 220K
R517 27K
R518 2K2
R519 10K
R520 2K2
R521 5K
R522 68K
R523 10K
R524 22K
R525 10K
R526 22K
R527 220K
R528 1K
R529 50K
R530 330E
R532 300
R533 680K
R535 2M7
R536 100K
R537 8K2
R540 8K2
R541 22K
R542
R543
R544
P501
P502 100
+12
+8
+5
+5B
RC
EWP
AMP COMP
HAMP
PR1
DD2
ED2
EF
UST
USB
BCL
25
26
27
32
780050
J12
UST
USB
+12V
+5V

Symbols 32 refer to adjustment procedure

PRODUCT SAFETY NOTICE

COMPONENTS MARKED WITH * OR ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT TO SAFETY BEFORE REPLACING ANY OF THESE COMPONENTS. READ CAREFULLY THE SERVICE SAFETY PRECAUTIONS.
DO NOT DEGRADE THE SAFETY OF THIS SET THROUGH IMPROPER SERVICING

BARCO

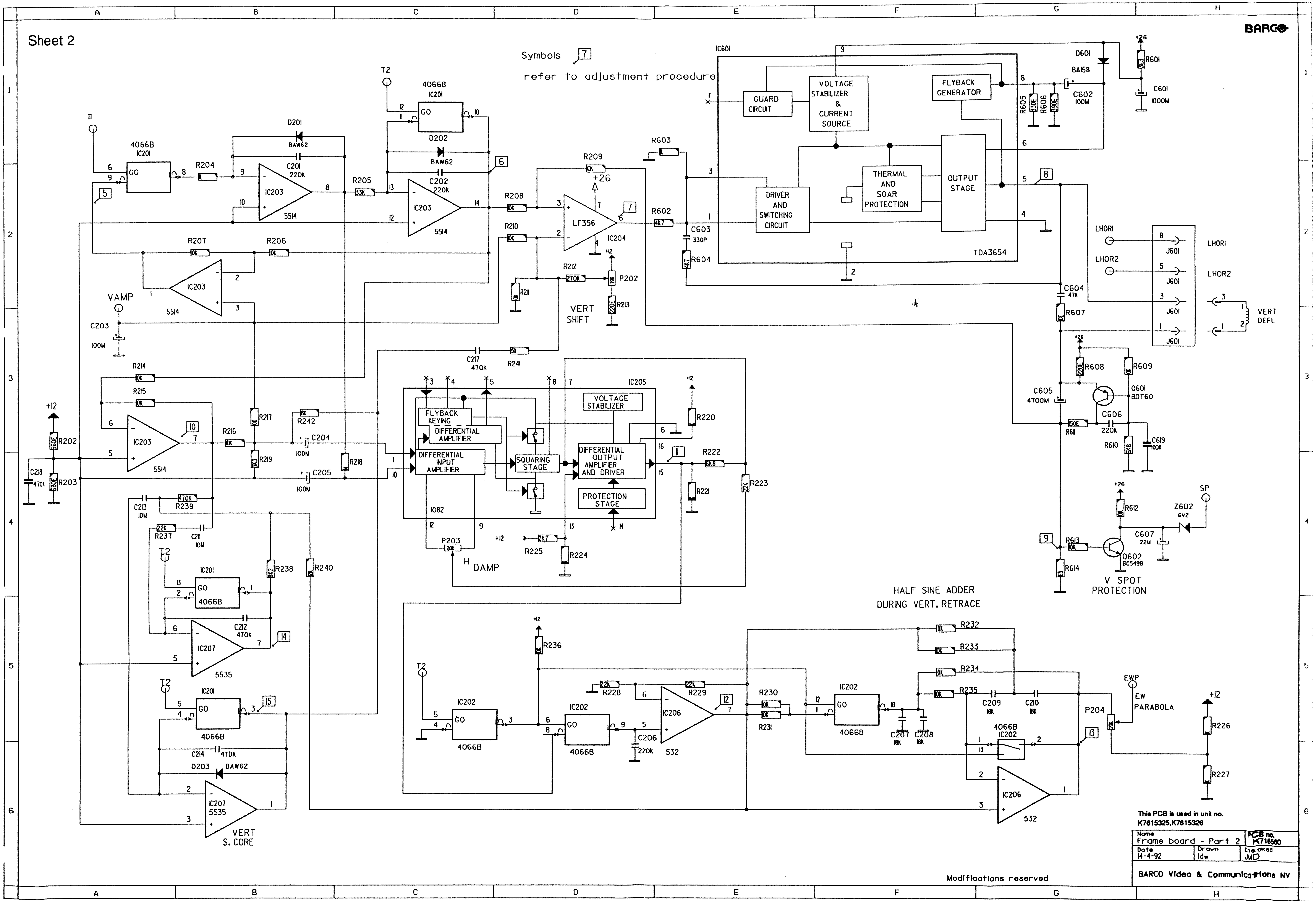
This PCB is used in unit no.
K7615325,K7615326

Name		PCB no.
Frame board - Part 3		76 560
Date 14/04/92	Drawn ldw	Checked JMD

BARCO Video & Communications

SCHEMATIC NAME: 761532.sch SHEET NUMBER: 3 DATE: Aug 26, 1992

Sheet 2


A
B
C
D
E
F
G
H
1
2
3
4
5
6
BARCO
Symbols 7
refer to adjustment procedure
T1
T2
4066B
IC201
GO
R204
D201
BAW62
C201
220K
IC203
5514
R205
33K
D202
C202
220K
6
5
R207
R206
VAMP
C203
100M
R208
R209
+26
LF356
IC204
R210
R211
R212
270K
P202
R213
VERT SHIFT
C217
470K
R241
R603
R602
4K7
C603
330P
R604
IC601
GUARD CIRCUIT
VOLTAGE STABILIZER & CURRENT SOURCE
FLYBACK GENERATOR
THERMAL AND SOAR PROTECTION
DRIVER AND SWITCHING CIRCUIT
OUTPUT STAGE
TDA3654
D601
BA158
R601
C601
1000M
R605
330E
R606
390E
C602
100M
8
LHOR1
LHOR2
J601
VERT DEFL
C604
47K
R607
C605
4700M
R608
R609
Q601
BDT60
C606
220K
R61
50E
R610
6K8
C619
100K
R612
Z602
6V2
SP
C607
22M
R613
Q602
BC549B
R614
9
V SPOT PROTECTION
+12
R202
560E
C218
470K
R203
680E
R214
R215
10
R216
R217
R219
R242
C204
100M
C205
R218
C213
10M
R239
470K
R237
22K
C21
10M
R238
R240
C212
470K
IC207
5535
14
15
C214
470K
D203
BAW62
VERT S. CORE
IC205
FLYBACK KEYING
DIFFERENTIAL AMPLIFIER
DIFFERENTIAL INPUT AMPLIFIER
SQUARING STAGE
VOLTAGE STABILIZER
DIFFERENTIAL OUTPUT AMPLIFIER AND DRIVER
PROTECTION STAGE
1082
P203
H DAMP
R225
2K7
R224
R220
R221
R222
6K8
R223
22K
1
HALF SINE ADDER DURING VERT. RETRACE
R236
IC202
R228
22K
R229
22K
IC206
532
C206
220K
12
R230
R231
R232
R233
R234
R235
C209
18K
C210
18K
C207
18K
C208
18K
13
P204
EWP
EW PARABOLA
R226
R227

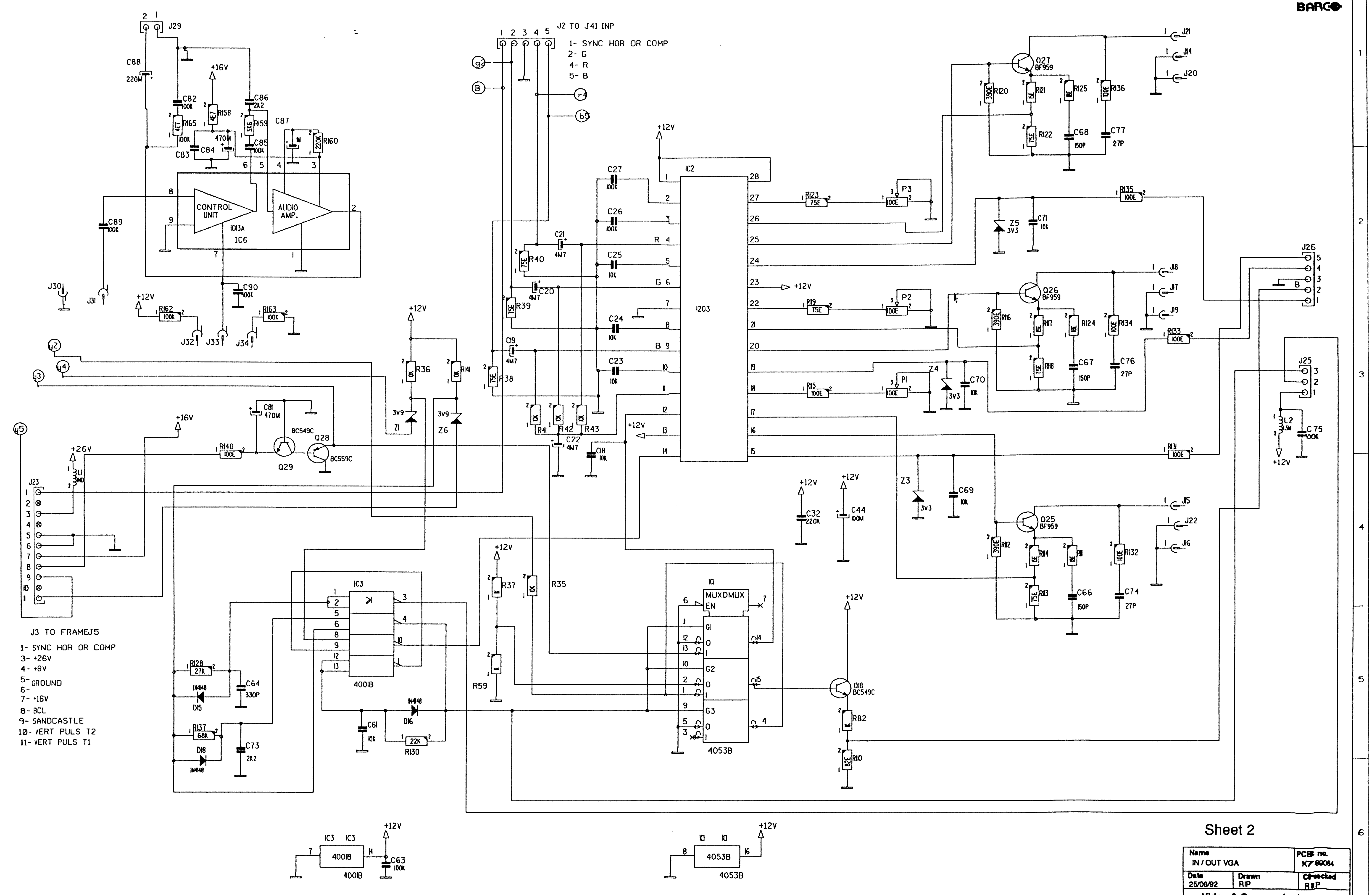
This PCB is used in unit no.
K7615325,K7615326

Name Frame board - Part 2		PCB no. K716560
Date 14-4-92	Drawn ldw	Checked JMD

BARCO Video & Communications NV

Modifications reserved

SCHEMATIC NAME: 761532.sch SHEET NUMBER: 2 DATE: Aug 26, 1992


BARCO
J29
C88 220M
C82 100K
R165 4E7
+16V
R158 4E7
C86 2k2
R159 5K6
C85 100K
C87
R160 220K
C83
C84 470M
CONTROL UNIT
AUDIO AMP.
1013A
IC6
C89 100K
J30
J31
C90 100K
+12V
R162 100K
R163 100K
J32
J33
J34
J2 TO J41 INP
1- SYNC HOR OR COMP
2- G
4- R
5- B
g2
B
r4
b5
IC2
1203
C27 100K
C26 100K
C25 10K
C24 10K
C23 10K
C21 4M7
C20 4M7
C19 4M7
C22 4M7
C18 10K
R40 75E
R39 75E
R38 75E
R41 10K
R42 10K
R43 10K
R36 10K
R141 10K
3V9
Z1
Z6
C81 470M
BC549C
Q28
BC559C
Q29
R140 100E
+26V
L1
J23
u2
u4
u3
u5
R123 75E
P3 100E
R119 75E
P2 100E
R115 100E
P1 100E
Z4
Z5 3V3
C71 10K
C70 10K
R135 100E
R133 100E
R131 100E
Q27 BF959
Q26 BF959
Q25 BF959
R120 390E
R121 6E
R122 75E
R125 18E
R136 100E
C68 150P
C77 27P
R116 390E
R117 6E
R118 75E
R124 18E
R134 100E
C67 150P
C76 27P
R112 390E
R114 6E
R113 75E
R111 18E
R132 100E
C66 150P
C74 27P
J21
J14
J20
J18
J17
J19
J15
J22
J16
J26
J25
L2 1.5M
C75 100K
Z3 3V3
C69 10K
C32 220K
C44 100M
IC3
4001B
R128 27k
C64 330P
D15 1N4148
R137 68K
D18 1N4148
C73 2k2
C61 10K
D16 1N4148
R130 22K
R37 1K
R35 10K
R59 1K
IO
MUXDMUX
EN
G1
G2
G3
4053B
Q18 BC549C
R82 1K
R110 82E
C63 100K

J3 TO FRAMEJ5

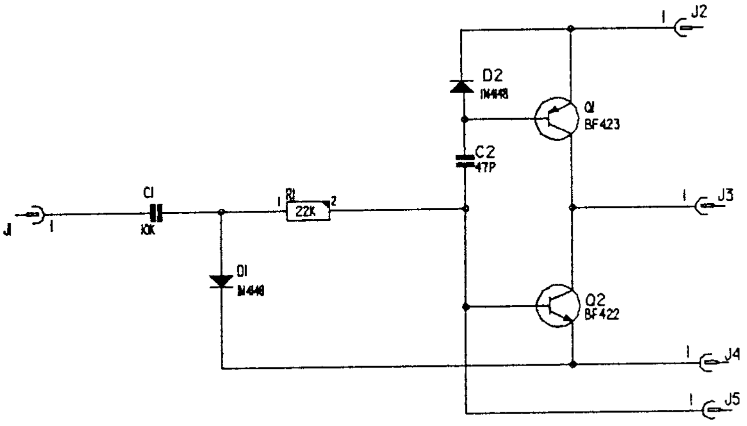
1- SYNC HOR OR COMP
3- +26V
4- +8V
5- GROUND
6-
7- +16V
8- BCL
9- SANDCASTLE
10- VERT PULS T2
11- VERT PULS T1

Sheet 2

Name IN / OUT VGA		PCB no. K7 89064
Date 25/06/92	Drawn RIP	Checked RIP
Video & Communications		

SCHEMATIC NAME: decoder.sch SHEET NUMBER: 2 DATE: Sep 23, 1992

BARCO

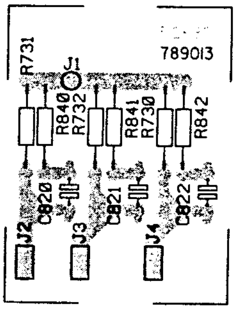

J2
1
D2
1N4148
Q1
BF423
C2
47P
C1
10K
R1
1
22K
2
J3
J
1
D1
1N4148
Q2
BF422
J4
J5

This PCB is used in unit no. K76197

Name Sub. Hor. Blanking		**Article no.** K789047
Date 10/10/1992	**Drawn** RIP	**Checked** RIP

Video & Communications

SCHEMATIC NAME: ho.bl.p.46.sch SHEET NUMBER: 1 DATE: Aug 27, 1992


789013
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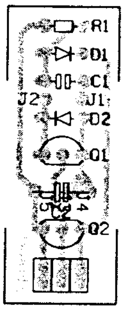
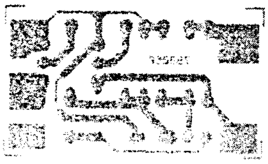
J1
R840
R732
R841
R730
R842
C820
C821
C822
J2
J3
J4


R1
D1
C1
J2
J1
D2
Q1
D4
Q2



PCB K789013 is used in unit no. K761960.
PCB K789047 is used in unit no. K761977

Name SUBUNITS FRAME BOARD		**PCB no.**
Date 25/06/92	**Drawn** RIP	**Checked** RIP
Video & Communications		

1. THE HORIZONTAL OSCILLATOR

The sync pulses coming from the sync selector (RGB processor board) enter the TDA 2595 at pin 11. This IC uses an oscillator controlled by the current at pin 14 to lock onto an incoming sync signal. The free running frequency is determined by C309. When the oscillator is locked onto the incoming sync, the voltage at pin 17 will be 6V. In the other case this voltage will change which influences the current at pin 14 through R326.

As the TDA 2595 is only capable of locking onto frequencies within a small range an extra circuitry (IC 301 and IC302) has been implemented to cover the range from 15 KHz to 36 KHz.
Both the composite sync (pin 9) and the sandcastle output (pin 6) from the TDA 2595 are fed to a oneshot circuit (IC 301). Each of the two oneshots triggers on the positive edge of the incoming signal. The composite sync pulse (f1) is converted as a positive pulse whereas the sandcastle signal (f2) is converted as a negative pulse of the same length. Resistor R303 is adjustable to make the pulse length of the sync pulse adaptable. The proper adjustment of this pulse guarantees autolock within the complete range. The two pulse trains (pin7 and pin10) are added by means of R305 and R306 and integrated by IC302, pins 1-2-3.

The voltage difference (pin2-pin3) is integrated and results in a voltage of 6V at pin 1 when f1=f2. When f1>f2 the voltage at pin 1 will be less than 6V, in the other case it will be more than 6V. In each of these two cases (f1 differs from f2) one of the diodes D303-D304 is forward-biased which causes the output at pin 7 to be high. The mosfet Q301 is then turned on which feeds the voltage at pin 1 to pin 13. Through integration (pins 12-13-14) the voltage at pin 14 is proportional to the incoming frequency. After inversion (pins 8-9-10) the output signal (pin 8) is fed to the TDA 2595 (pin 14) to help the IC lock onto the incoming sync. The resistor network R310-R314 allows a certain frequency difference between the sync and the sandcastle before Q301 is turned on. This results in a better locking on unstable VCR syncs as only the TDA2595's autolock loop can react to these instabilities. As soon as f1=f2 Q301 is turned off and the TDA2595 is able to keep in step with the incoming sync frequency. To eliminate slow changes of this frequency, the phase comparator's output is also fed to IC302, pin 13. Note that here the time constant is a lot larger than for the integration of the output of Q301. This also helps in minimizing jitter.

The horizontal oscillator output (pin 4) of the TDA2595 passes through two Schmitt triggers before going to the deflection drive generator (signal DD1). The same oscillator output is connected to a oneshot (IC501) which creates the signal RG1 for the horizontal ramp generator. The output of this first oneshot (pin7) goes to a second oneshot which delivers the appropriate drive signal (ED1) for the EHT generator. This signal ED1 needs to be long enough to switch the EHT transistor at the right time. (see also fig7)

2. THE S-CORRECTION SELECTOR

In the power section are 3 switchable capacitors. By dividing the frequency range into eight sections, the use of these capacitors is optimized. The table below shows which capacitors are active in each section.

frequency range (KHz)	inputs of IC403	outputs of IC403		
		S2	S1	S0
f min to 15300	1111111	1	1	1
15300 to 16100	1111110	1	1	0
16100 to 17100	1111100	1	0	1
17100 to 19300	1111000	1	0	0
19300 to 23400	1110000	0	1	1
23400 to 27500	1100000	0	1	0
27500 to 32300	1000000	0	0	1
32300 to 36000	0000000	0	0	0

A logic 1 at the output activates the capacitive circuit connected to that output.
S0 activates C709.
S1 activates C710.
S2 activates C711.

The signal FILTER OUT represents the actual horizontal frequency. This signal is connected to the inputs of seven comparators (IC401 - IC402) by means of a low pass filter (R401 - C401). The DC voltage on the + inputs of these comparators represent the switch-over frequencies. Resistors R410 to R416 create enough hysteresis to prevent the switching circuitry from bouncing at the switch-over frequencies.

3. THE VERTICAL OSCILLATOR (FIG 1)

The different signals within the vertical oscillator are shown in fig 1. After being inverted by transistor Q101 the sync pulses are applied to two oneshots (T1 and Tmin). Tmin creates a negative pulse of 8 ms at the falling edge of the incoming pulse (pin 5).
Through diode D104 the collector of transistor Q101 is pulled to ground for 8 ms which prevents incoming

sync pulses from entering the vertical oscillator. In this way the maximum vertical frequency is determined as 125 Hz.

T1 generates a 50 µs positive pulse which is fed to two more oneshots (Tmax and T2). Tmax creates a positive pulse at the falling edge of T1. The duration of Tmax is 22 ms unless the oneshot is triggered again before the end of the pulse. This means that diode D105 is cut off during normal operation. When no sync pulse is applied to transistor Q101 Tmax will generate a falling edge after 22 ms hereby triggering T1 and Tmin again. In this way the minimum vertical frequency is determined as 45 Hz.

T2 which has been set up at 550 µs controls vertical retrace and blanking.

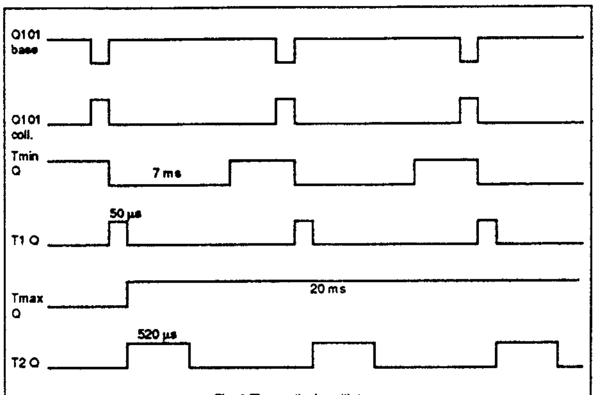


Fig. 1 The vertical oscillator

4. THE VERTICAL SAWTOOTH GENERATOR (FIG 2)

The output voltage at pin 8 of IC203 determines the charge current of capacitor C202 through R205. This current together with the period time represents the amplitude of the sawtooth. During the vertical blanking time, capacitor C202 is discharged by a switch (IC201, pins 10-11-12), which is controlled by the pulse T2. After the discharge the output voltage at pin 14 of IC203 is equal to the + input voltage, which is typically 6.5 V (determined by R202-R203). The voltage at pin 14, just before the discharge, determines the vertical amplitude. At pins 1-2-3 of IC203 this voltage is compared to the voltage which represents the desired vertical amplitude. During time T1 (i.e. the end of the scan) the result of this comparison is fed to pin 9, which influences the voltage at pin 8.

The error amplifier (IC204, pins 2-3-6), together with the vertical output stage form a stabilised loop. The error amplifier compares the desired sawtooth (IC203 pin 14) with the actual sawtooth through the deflection coil (feedback through R209). The difference is amplified and drives the output stage (IC601). The DC voltage for the loop is applied to the minus input of the error amplifier. By means of potmeter P202 a small amount of DC shift can be added to the desired sawtooth. This shift is required to compensate for circuit offsets and picture tube off-centre. It will cause DC current through the deflection coil. This adjustment should be used to set the trapezium error to zero and not for scan shift. The adjustment range is limited by R212 and R213.

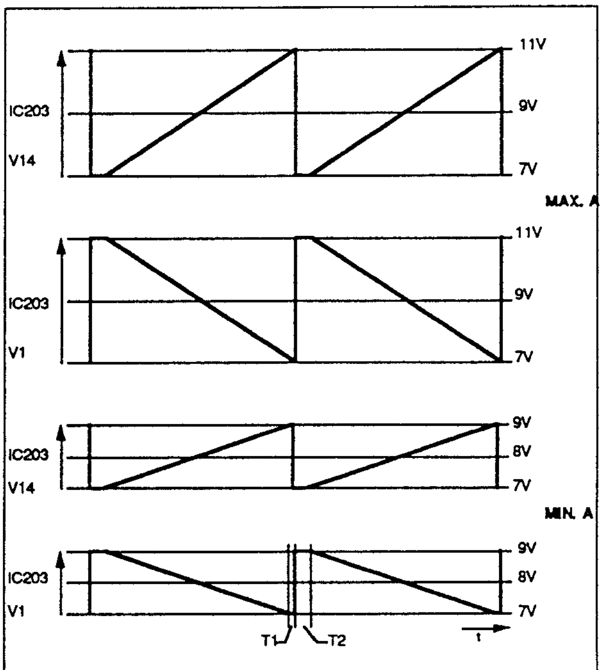


Fig. 2 The vertical sawtooth generator

5. VERTICAL S-CORRECTION

The S-correction is accomplished by integrating the vertical sawtooth by means of IC207 (pin 5,6,7). This results in a parabola which decreases with increasing frequency.

Integrating this parabola by means of IC 207 (pin 1,2,3) results in a signal with an S-form, which is nearly constant by variable frequency.

6. THE VERTICAL OUTPUT STAGE

The vertical output stage is built around the TDA3654 (IC601). The output signal of the error amplifier is connected to the TDA3654 by means of a voltage divider (R602-R603). The supply for the power stage is filtered by R601-C601, to prevent pollution of the 26 V rail. The flyback supply doubler is connected in the standard way. During vertical retrace the supply voltage is connected to pin 8 hereby causing a voltage doubling at pin 6.

7.2. The Hdamp adjustment (fig 4)

With the Hdamp potentiometer (P203), the trapezium distortion (caused by internal offsets of the TDA1082) on the EW parabola can be adjusted. The effect of this correction is shown in fig 4. Sudden changes in the supply voltage will cause a badly damped EW amplitude oscillation. The EW parabola is also a supply voltage variation of the horizontal deflection stage. A discontinuity in the EW waveshape will cause horizontal amplitude oscillations. With the Hdamp potmeter the end of the scan value of the EW parabola can be made equal to the beginning of the scan value. Improper adjustment will cause horizontal ringing in the top of the screen. This potentiometer should only be used for damping purposes and not for trapezium correction.

The average DC value of the vertical sawtooth during scan time on pin 11 of the TDA1082 is slightly dependent on the frequency. This is caused by the flat positive section of the sawtooth during the vertical blanking time. For higher frequencies this flat section will be longer in relation to the scan time and the average scan voltage will be lower. This DC shift causes a discontinuity of the parabola, as shown in fig 4. Frequency independence is obtained through R218. For higher frequencies the output voltage at pin 8 of IC203 will be lower. Resistor R218 will cause the same DC shift on pin 10 of the TDA1082 as the blanking time did on pin 11. The result is a frequency independent adjustment of P203.

7.3. The half sine adder (fig 5)

Oscillations in the horizontal deflection stage are not only activated by a voltage jump in the EW signal, but also by a sudden change in the slope of the EW signal. This happens during the vertical retrace. By adding a half sine with the right magnitude and duration to the parabola during the vertical blanking, excitation of the horizontal output stage is prevented. This is accomplished with a sample and hold circuitry and a sine wave generator. Fig5. shows the essential waveshapes.

During the scan time the sample and hold switch (IC202 pins 6, 8 and 9) is closed, and the output of the TDA 1082 is stored in capacitor C206. This signal is buffered and amplified on pin 7 of IC206. During the scan, pin 1 of IC206 will follow the signal of pin 7 (IC206) because the analog switch (IC202, pins 1 and 2) is closed. During the blanking time the sine generator is activated. This generator is based on the double integrator principle and has a half period time equal to the blanking time. By adding this half sine, a smooth and frequency independent EW parabola is available at pin 1 of IC206.

The EW parabola amplitude can be adjusted with P204. By turning P204, the amplitude along the horizontal axis will remain unchanged as it is set by R226 and R227.

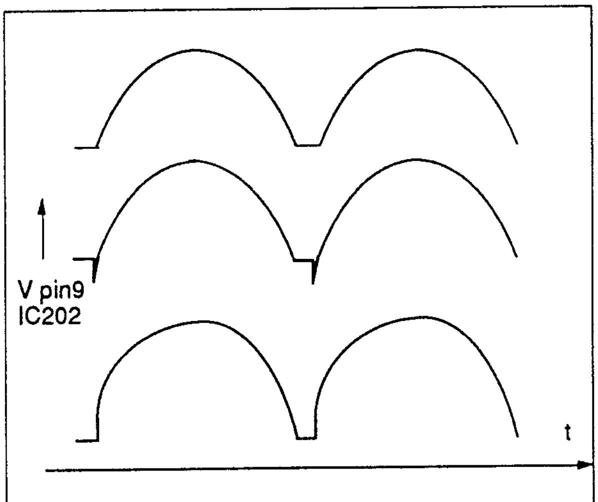


FIG.4: THE EFFECT OF THE HDAMP POTENTIOMETER

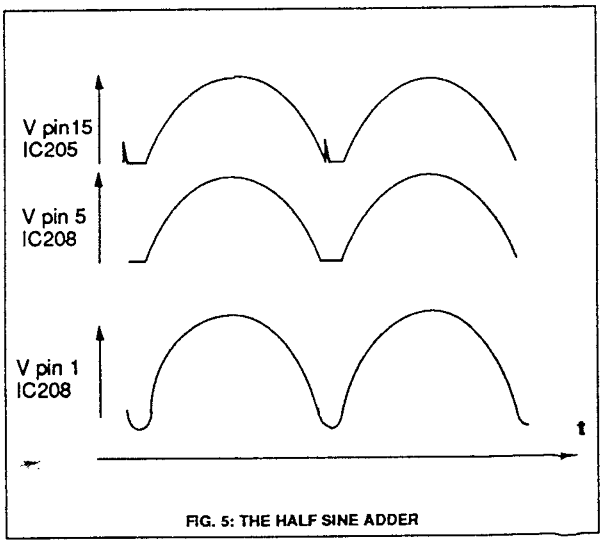


FIG. 5: THE HALF SINE ADDER

For high frequency stability reasons R604 and C603 connect the output of the IC to the input. C604 and R607 are connected across the deflection coil to suppress horizontal interference caused by the cross talk between the horizontal and vertical deflection coils.

Capacitor C605 is required to keep the voltage ripple across this capacitor as small as possible. This guarantees a maximum voltage swing at the output and prevents clipping against the supply voltage during a frequency jump.

The feedback signal is taken from sense resistor R614.

The DC coupling is realised by the network around transistor Q601. The base of this darlington transistor is kept at an average voltage of 6.5 V. The average emitter voltage is approximately 7 V.

If this voltage becomes too high, capacitor C605 will be discharged through Q601 and R611. If the voltage is too low, C605 will be charged via R608.

Charging and discharging will occur during the peaks of the ripple voltage across C605, which reduces the peak currents.

Spot protection is provided to prevent spot burn during a collapse of vertical deflection. If the deflection causes less than a 0.6 V voltage drop across the sense resistor (R614) the protection will be activated. During normal operation the peak voltage on the feedback point will be approximately 1 V and Q602 will conduct every frame period thereby discharging capacitor C607. If the protection is activated Q602 will no longer be turned on and within a period the capacitor voltage will exceed 6.2 V. Diode Z602 will then become conductive and the protection circuitry in the grid 1 drive will be activated.

7. THE EW PARABOLA GENERATOR.

7.1. The squaring stage (fig 3)

The parabola for EW correction is created by squaring the vertical sawtooth. The signal between pins 10 and 11 of the TDA1082 (IC205) is squared.

(see fig 3)

The inputs of the TDA1082 are AC coupled by means of capacitors C204 and C205. To prevent long settling times, the DC voltage across C204 can not vary as the vertical amplitude changes. For this reason the output voltage at pin 14 of IC203 is inverted (IC203, pin 7) and the wiper voltage of the vertical amplitude potentiometer is added to this signal. In this way an amplitude change will be symmetrical around the average value of the sawtooth and there will be no DC shift across C204.

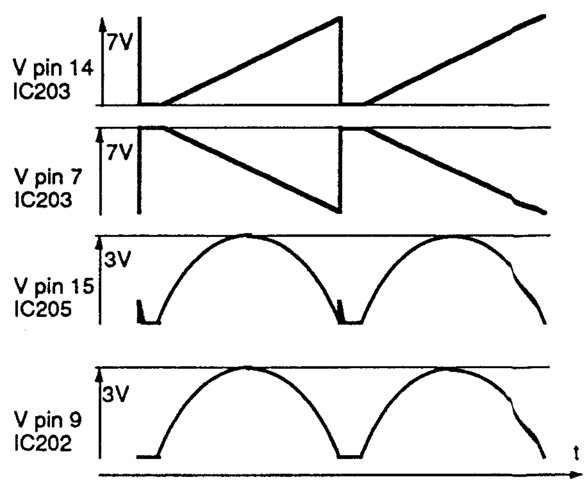


FIG. 3: THE EW PARABOLA GENERATION

8. THE HORIZONTAL DRIVE GENERATION

8.1. The horizontal ramp generator (fig 6)

The ramp generator should have very good stability and low temperature drift. For this reason C506 is a precision film foil capacitor, and the charge current is kept constant by means of the current source configuration IC503-Q501.

The ramp generator is discharged by the falling edge of the signal RG1. IC502 creates a short buffered drive pulse for transistor Q503 in order to discharge capacitor C506 of the ramp generator.

The collector voltage of Q501 is fed to the minus input of comparator IC504 (pin2). The voltage at the + input of this comparator determines the output pulse duration and in this way also the horizontal amplitude. During start up, capacitor C509 is slowly charged by R519 and the output pulse duration will slowly grow until the required value is reached. Diode D501 blocks the effect of C509 during normal operation. D502 discharges C509 when the monitor is switched off. The horizontal amplitude can be adjusted by the signal Hamp. Resistors R517 and R515 determine the right adjustment range.

To prevent bouncing at the output, resistor R516 incorporates some hysteresis in the comparator circuitry.

The EW modulation enters the + input of the comparator through R505. Capacitor C515 will block high frequency interference on this input.

The output signal is buffered by IC502 (pins 10-11). The buffered signal is called DD2 and drives the output transistor.

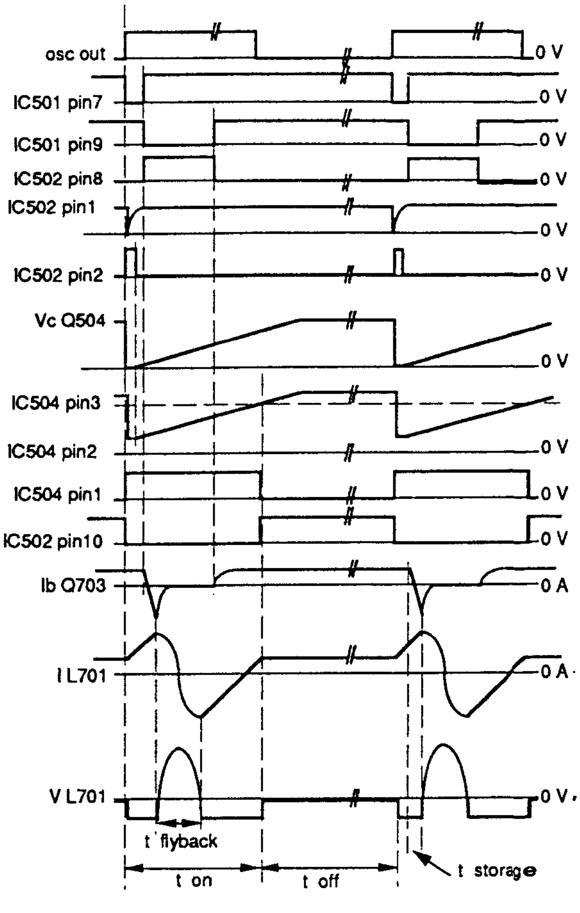


Fig. 6 : The horizontal drive generation

8.2. The EHT ramp generator

To prevent any interference with the horizontal pulse width modulator, a separate ramp is made for the EHT section. The EHT ramp generator is almost identical to the horizontal ramp generator except for the current source (IC503, pins 5-6-7 and Q502). There is no feedback from the emitter of Q502, which may cause some temperature drift. This is no problem as the EHT error amplifier will compensate for the temperature drift. For the same reason, the capacitor C507 may be of a lower quality type than C506.

The output signal ED2 is the result of the comparison of the ramp signal and the error signal (IC504, pins5-6). Resistor R527 prevents bouncing of the comparator's output signal, which is afterwards buffered by IC502, pins 5-6.

8.3. The EHT error amplifier

The value of the EHT feedback signal (EF) is determined by a 550 MOhm resistor (see the EHT section) and R522 and P502. This feedback signal is fed to the - input of the error amplifier (IC503, pins 1-2-3). This amplifier compares the feedback signal with a reference signal on the + input. The output signal at pin 1 is the buffered and integrated difference signal. The reference voltage is set by resistors R523 and R524. Resistor R532 and capacitor C512 take care of the slow start and diode D503 discharges C512 when the monitor is switched off. The output signal of the error amplifier is divided by R525 and R526 to limit the on-time of transistor Q808 (see the EHT section). During slow start D504 limits the on-time.

8.4. The overload protection

During normal operation the reference voltage on IC503 pin 3 is approximately +8 V. In case of overload, this voltage should be pulled down. If the signal BCL, which comes from the EHT transformer, pulls the base of Q505 below the reference level the thyristor configuration Q505-Q506 will be fired and capacitor C512 will be discharged.

After the discharge the hold current of the thyristor configuration is too small and it ceases to conduct. A slow start cycle will follow.

9. THE HORIZONTAL OUTPUT STAGE

9.1. The deflection transistor Q703 (fig 7)

The deflection transistor Q703 is driven by transformer T701. During time Ton the input signal DD1 is low and transistor Q701 is cut off. The energy which is stored in transformer T701 will turn transistor Q703 on. During time Toff the input signal DD1 is high which will turn Q701 on and a current will flow through the primary winding of T701. First the base storage charge of Q703 has to be removed with a negative current slope during time Tstorage, while the collector current keeps flowing. Then the base-emitter junction will zener, the flyback starts and the collector current decreases to zero. After the flyback, the recovery diode D701 will conduct during T1. Resistor R702 and capacitor C703 will damp ringing during base drive and will limit the peak collector voltage of Q701. The circuitry around transistor Q712 acts as a current source for transformer T701.

The flyback pulse for the horizontal oscillator is generated by resistor dividing of the high flyback pulse at the emitter of Q703. This signal is AC coupled by C712 and after inversion fed to the phase comparator of the TDA2595.

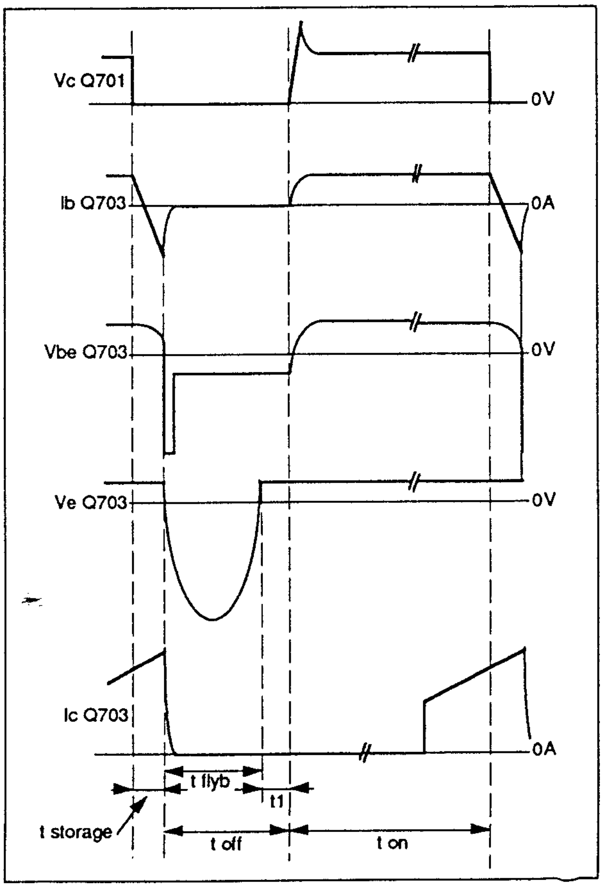


Fig. 7 : The horizontal output stage

C714 will be pulled above 6.2 V and the current through zener Z707 will start the protection action.

10. THE EHT OUTPUT STAGE

10.1. The drive transistors Q803-Q808

The drive circuitry for these transistors is identical to the horizontal deflection circuitry (see sections 8.1 and 8.2) except for minor differences.
The diode D801 prevents undesired cut on of Q801 after tripping of the X-ray protection.
Diode D816 and Capacitor C804 are added in the supply rail to reduce the ripple on this rail. The capacitor will carry the large ripple current and only the average current has to be supplied via D816.

10.2. The X-ray (overvoltage) protection

If the EHT voltage exceeds 32 kV, the base drive of transistor Q803 will stop immediately. The EHT voltage is measured at an auxiliary winding of the transformer (pin 3 of T802). The peak value of this voltage is compared to a reference voltage (determined by R811-R812). Transistor Q804 forms a thyristor configuration with Q805. Once this configuration is fired it will remain conductive. This will lead to the cut on of Q806 and a constant current will flow through the primary of transformer T801. As the oscillations in the transformer are stopped transistor Q803 will be switched off and remain off. Resistor divider R808-R810 is selected in such a way that the emitter of Q804 is prebiased a couple of volts below the base voltage. Resistors R809-R813-R814 and capacitors C806-C807-C808 prevent the overvoltage protection from being activated by electrostatic discharges.

10.3. The high voltage components (CRF block)

The high voltage components in between the EHT transformer and the picture tube are incorporated in the CRF block (capacitor-resistor-focus). The capacitor will enhance the EHT pulse load response and it will decrease the voltage drop across the 33 K resistor. This series resistor will limit the discharge currents during a flash or short circuit.
The 550 Mohm resistor is required for EHT feedback.
The focus and Vg2 are derived from the EHT by means of resistor dividing. This ensures a good focus tracking with the EHT independent of load or frequency variations.

10.4. The Vg1

The voltage on the first grid of the tube is generated by flyback rectification of one of the EHT transformers windings (D806-C813).
To prevent visible vertical retrace lines, the Vg1 is pulled down during every vertical flyback. The input signal 'T2' is low during the vertical scan time. Q812 will be in cut off and the voltage across the zener diode Z814 will be 150 V. Capacitor C812 will be charged with the voltage difference between Vg1 and this 150 V. During vertical blanking 'T2' will be high and Q812 will conduct. The Vg1 voltage is pulled down by 150 V through C812 which results in sufficient blanking.
The heater is supplied out of the +8 V rail. To obtain the recommended heater voltage of 6.3 V a series resistor (R828) is added.

10.5. Beam current limiting - spot protection

The beam current flows through R818 and creates a negative voltage which will change the contrast adjustment (see section 3.4. in technical description of decoder board). If however this negative voltage keeps growing more negative, diode D807 will become forward biased which will cause the Vg1 voltage to go down.

The picture tube has to be protected against spot burn. This protection has to be activated either when one of the deflection circuits fail or when the monitor is switched off. In both cases the Vg1 voltage is pulled down immediately.
After switching off the monitor, the +165 V supply rail will decrease and the Vg1 voltage will be pulled down through D810 and C815.
If one of the deflection circuits fail (or is too low) the signal 'SP' will go high hereby turning on transistors Q810 and Q811. This will also pull the Vg1 voltage down.

9.2. The drive of Q704 (Fig.8)

The time Ton of transistor Q704 determines the horizontal amplitude. When this time is kept at a constant value, the average voltage at the collector of Q704 will change depending on the horizontal frequency. This happens in such a way that the slope of the sawtooth through the deflection coil doesn't change when the horizontal frequency changes. In this way the horizontal amplitude will only depend on the on-time of Q704. Resistors R728 and R706 provide enough base drive for fast cut on. An anti saturation clamp (resistor R707 and diode D702) prevents storage time delay during cut off.
During the turn on of transistor Q702, the base emitter junction of Q704 is pulled approximately 3 V below zero (Z703 and C705) and this transistor will cut off very fast.
Capacitor C715 stabilises the +8 V rail and C704 makes Q702 switch without delay.

The RLC damper (R708, L702, C706) lowers the Q factor of the output stage to an acceptable level to prevent ringing in the horizontal scan. The imperfections of the EW parabola which aren't removed by the half sine adder will become invisible due to the RLC damper.

9.3. Horizontal linearity and S-correction

The horizontal linearity can be adjusted with corrector L703. The linearity is slightly dependent on the frequency for which there is no compensation. If the linearity is adjusted at 24 kHz the error at 15 or 36 kHz will be less than 2%. Resistor R709 will damp the ringing of L703.

By switching three S-correction capacitors eight combinations can be made. If control line 'S0' is high, Q708 and Q705 (darlington transistor) will conduct hereby activating C709. If 'S0' is low the capacitor is disconnected. C710 and C711 are selected in an identical way. Resistors R710, R711 and R712 will keep the average voltage across the darlington transistors small enough when in cut off. This will prevent possible damage when they are switched on. Capacitor C708 is a fixed S-correction capacitor.

9.4. The horizontal spot protection

If the horizontal amplitude is smaller than a safe level, spot burn is prevented by pulling the first CRT grid down. The current through the horizontal deflection coil will cause a parabola shaped ripple on the S-correction capacitors. Every period this ripple will make transistor Q711 conduct and C714 remain discharged. If the deflection current is too small or zero, T711 will no longer conduct, the voltage across

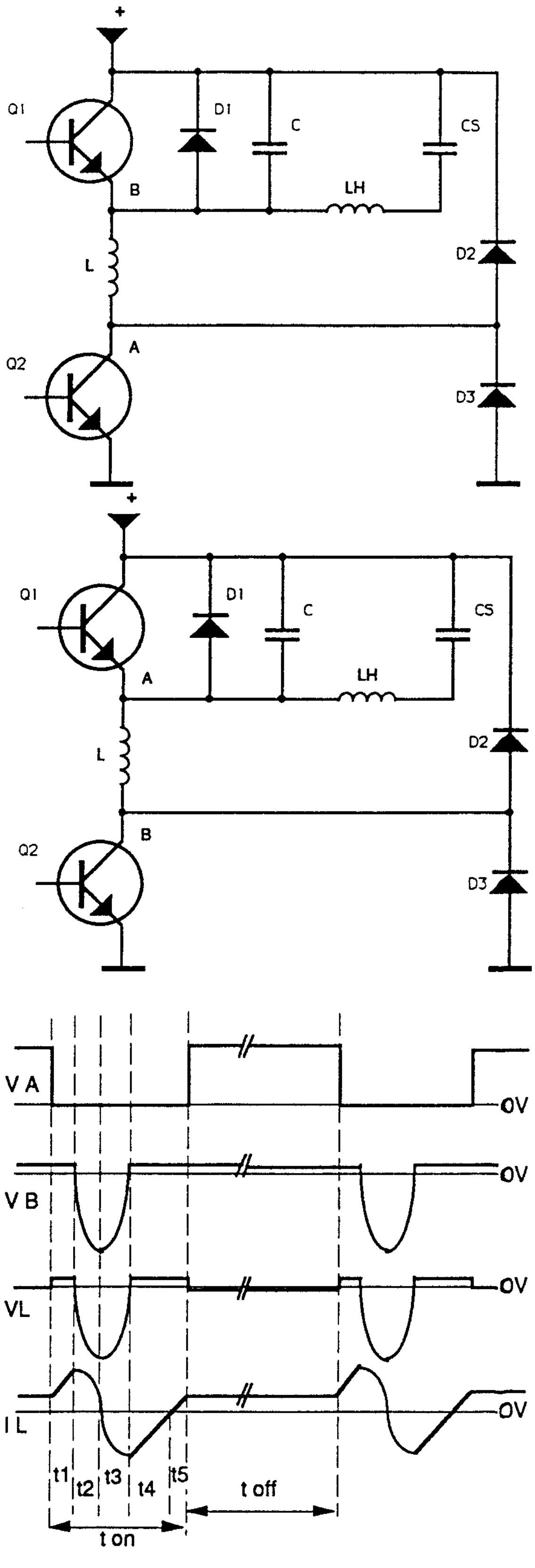


Fig. 8 : The basic output stages for horizontal deflection and EHT

P701 (HOR. SHIFT)
(SCH. DIAGR. PART 2)

P202 (VERT.SHIFT)
(SCH.DIAGR. PART 2)

P204 (EW PARABOLA)
(SCH.DIAGR. PART 2)

L703 (HOR.LINEAR.)
(SCH.DIAGR. PART 4)

These adjustments are made on sight:

- Feed a test pattern (preferably circular) at 31.5 kHz.

- Adjust the potentiometers to obtain an image with correct dimensions and geometry.

REMARK :

AFTER REPLACEMENT OF ANY X-RADIATION RELATED COMPONENT (MARKED IN THIS MANUAL WITH AN *), YOU SHOULD (AMONGST READJUSTMENT OF THE SMPS AND THE EHT VOLTAGE) CHECK THE EHT HOLD DOWN CIRCUIT AND THE BEAM CURRENT LIMIT CIRCUIT !

Proceed as follows:

EHT HOLD DOWN CIRCUIT (SCH.DIAGR. PART 3)

- Short-circuit IC503 (pin2) to ground.

- Feed a signal at 15 kHz.

- The EHT voltage increases to maximum. At a level, which is not higher than 32 kV (but can be a little lower) , the monitor should go into hold down.

The EHT voltage should never exceed 32 KV before going into hold down.

BEAM CURRENT LIMIT CIRCUIT (SCH. DIAGR. PART 5)

- Feed a colour test pattern.

- Short-circuit R818.

- Turn the Contrast- and Brightness controls to maximum.
  This results in a very intense image.

- Remove the short-circuit over R818.

- The intensity of the image should decrease. In that case, the Beam current limit circuit is active.

P501 (MAX. HOR. AMP) (SCH.DIAGR.PART3)

Proceed as follows:

- Make sure the unit is switched off.

- Connect an oscilloscope with an attenuation probe 100:1 to the emitter of Q703 (schematic diagram part4) to measure the horizontal flyback pulses.

- Turn P501 to minimum position (completely counterclockwise).

- Switch on the unit.

- Feed a signal with a horizontal amplitude of 36 kHz.

- Check if the voltage at pin 2 of connector J6 equals 7.3V DC. If not, first adjust P12 on the decoder board.
  Adjust P501 to obtain flyback pulses with following amplitude at the emittor of Q703:
  Frame 76 1535: 1230 V
  Frame 76 15326: 1200 V

P301 (AUTOLOCK) (SCH.DIAGR.PART1)

Proceed as follows:

- Feed a signal with a horizontal frequency of 36 kHz.

- Connect an oscilloscope to IC301 (pin7).

- Measure the pulse width of the pulses at pin7 (approx. 15.5 µs.)

- Connect an oscilloscope to IC301 (pin10).

- Adjust P301 until the pulse width of the pulses at pin10 equals the one of the pulses at pin7.

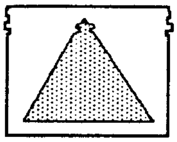
- Note that the pulses at pin 7 and pin 10 have opposite polarity.

P203 (HOR. DAMP) (SCH.DIAGR.PART 2)

Proceed as follows:

- Feed a color test pattern.

- Adjust P203 until you see no oscillations at the top of the image.



Oscillations due to incorrect -> adjustment of P203

P812 (HOLD DOWN) (SCH.DIAGR.PART 5)

IMPORTANT: USE AN APPROPRIATE EHT-PROBE TO MEASURE EHT VOLTAGE !

Proceed as follows:

- Feed a colour test pattern.

- Turn P812 to maximum position (completely counterclockwise).

- Measure the EHT voltage at the anode of the picture tube by means of a voltmeter with appropriate EHT-probe.

- Adjust P502 to obtain an EHT of 32 kV.

- Turn P812 clockwise until the set goes in hold down mode (EHT is switched off).

- Turn off the set and turn P502 to minimum position (completely counterclockwise).

- Turn on the set again and adjust P502 to its appropriate value (see next §).

P502 (EHT) (SCH.DIAGR. PART 3)

Important notice:

P502 is factory sealed with a thixotropic cyanoacrylate glue (SICOMET type 39 51 66).
If readjustment shows necessary, replace with an unsealed preset, perform the adjustment and reseal with the above mentioned sealant.

IMPORTANT: USE AN APPROPRIATE EHT-PROBE TO MEASURE EHT VOLTAGE !

Proceed as follows:

- Feed an input signal at 35,714 Hz horizontal frequency.

- Put the monitor in UNDERSCAN mode.

- Measure the EHT voltage at the anode of the picture tube by means of a voltmeter with appropriate EHT -probe.

- Adjust P502 to obtain the following EHT:
  Frame 76 15325: 25.5 kV
  Frame 76 15326: 25 kV

ORDER NO.	DESCRIPTION	ITEM
K101152	R CF H 22K J 0W25	R223,R237,R517,R541,R838
		R228,R229,R524,R526,R833,R839
K101154	R CF H 33K J 0W25	R115,R205, R505
K101155	R CF H 39K J 0W25	R810
K101156	R CF H 47K J 0W25	R316,R326
K101157	R CF H 56K J 0W25	R722,R723,R724
K101158	R CF H 68K J 0W25	R811
K101159	R CF H 82K J 0W25	R808
K101160	R CF H100K J 0W25	R331,R710,R711,R712,R826
		R515,R536
K1011605	R MF H100K F 0W25	R305,R306
K101161	R CF H120K J 0W25	R119
K101162	R CF H150K J 0W25	R529
K101164	R CF H220K J 0W25	R516,R527
K101165	R CF H270K J 0W25	R212,R307
K101166	R CF H330K J 0W25	R380
K101168	R CF H470K J 0W25	R239,R308,413,R414,R825
K101169	R CF H560K J 0W25	R314
K101170	R CF H680K J 0W25	R533
K101171	R CF H820K J 0W25	R412,R415
K101172	R CF H 1M J 0W25	R218,R301,R410,R411,R416,R831
		R315
K101177	R CF H 2M7 J 0W25	R535
K101200	R CF H 1E J 0W5	R
K101206	R CF H 3E3 J 0W5	R601
K1012165	R MF H 22E J 0W5	R707,R835
K101220	R CF H 47E J 0W5	R318,R534
K101226	R CF H150E J 0W5	R702,R807
K1012505	R MF H 15K 18623153	R832
K1013189	R CFFH 33E J 1W	R816
K101332	R CF H470E J 1W	R709
K1024209	R MF H162K F 0W25	R522
K1025203	R MF H 16K2 F 0W25	R402
K1025541	R MF H 30K G 0W25	R120
K1026007	R MF H 10K F 0W4	R528
K103002	R MF H 1E5 J 1W	R614
K103049	R MF H 12K J 1W	R720
K103050	R MF H 15K J 1W	R713,R716,R719
K103051	R MF H 18K J 1W	R714,R717
K103224	R MO H100E J 1W5	R706
K103226	R MO H150E J 1W5	R611
K103229	R MO H270E J 1W5	R608
K103614	R WW H 1E5 K 4W	R729
K103623	R WW H 8E2 K 4W	R828
K103636	R WW H100E J 4W	R817
K103721	R WW H 27E K 5W	R704
K1037271	R WW H 75E K 5W	R803
K1046621	R HV H 2M2 J 1W 10000	R733
K106511	R TWW H100E K 2W D20TC	P701
K106733	R TCE H100K K 0W5 S10TS	P502
K106827	R TCE V 2K K 0W5 S10SS	P301
K106830	R TCE V 20K K 0W5 S10SS	P202,P203,P204,P812

1.K7615326

ORDER NO.	DESCRIPTION	ITEM
K100352	R MF V 22K J 0W25 E1	R812
K1011059	R CFFH 2E7 J 0W25	R728
K101112	R CF H 10E J 0W25	R385,R607
K101114	R CF H 15E J 0W25	R837
K101118	R CF H 33E J 0W25	R703,R806
K101124	R CF H100E J 0W25	R532,R846
K1011254	R MF H120E F 0W25	R844
K101127	R CF H180E J 0W25	R335
K101128	R CF H220E J 0W25	R213
K101129	R CF H270E J 0W25	R407
K101130	R CF H330E J 0W25	R408,R530,R605,R818
K101131	R CF H390E J 0W25	R606
K101132	R CF H470E J 0W25	R809,R845
K101133	R CF H560E J 0W25	R202,R324
K101134	R CF H680E J 0W25	R203,R406,R805
K101136	R CF H 1K J 0W25	R204,R221,R224,R227,R302,R329 R220,R226,R425,R502,R542,R701 R336,R508,R512,R513,R514,R543, R544,R603,R705,R734,R802,R813, R814,R815,R827
K1011364	R MF H 1K F 0W25	R506
K101137	R CF H 1K2 J 0W25	R404,R405, R409
K101138	R CF H 1K5 J 0W25	R303,R323,R403
K101138	R CF H 1K5 J 0W25	R340
K101140	R CF H 2K2 J 0W25	R310,R311,R518,R520,R715,R718,
K101140	R CF H 2K2 J 0W25	R511,R735,R850,R721,R727
K1011402	R MF H 2K2 F 0W25	R509
K101141	R CF H 2K7 J 0W25	R118,R225,R304,R510
K101142	R CF H 3K3 J 0W25	R219,R328
K101143	R CF H 3K9 J 0W25	R801
K101144	R CF H 4K7 J 0W25	R114,R602,R604,R834
K1011444	R MF H 4K7 F 0W25	R507
K101145	R CF H 5K6 J 0W25	R501
K1011454	R MF H 5K6 F 0W25	R317,R320,R377
K101146	R CF H 6K8 J 0W25	R222,R540
K101146	R CF H 6K8 J 0W25	R504,R610
K101147	R CF H 8K2 J 0W25	R238, R537
K1011473	R MF H 9K1 G 0W25	R322
K1011474	R MF H 8K2 F 0W25	R321
K101148	R CF H 10K J 0W25	R207,R503,R517,R528 R116,R117,R206,R208,R209,R214, R215,R216,R217,R230,R231,R232, R233,R234,R235,R236,R309,R312, R313,R401,R417,R418,R419,R420, R421,R422,R423,R519,R523,R525, R609,R612,R613,R725,R726,R824
K1011484	R MF H 10K F 0W25	R210,R211,R319
K101149	R CF H 12K J 0W25	R240,R327
K101150	R CF H 15K J 0W25	R241, R330,R521
K101151	R CF H 18K J 0W25	R242

ORDER NO.	DESCRIPTION	ITEM
K113729	C POMERA 270N K 63E2 85	C322,C617
K113730	C POMERA 330N K 63E2 85	C525
K113732	C POMERA 470N K 63E2 85	C212,C214,C217,C218,C312,C705, C810
K113890	C PETPFP 2M2K100E6	C304,C718
K114104	C POMERA 470N K100E6 85	C712
K114110	C POMERA 4M7K100E11 85	C510,C702
K114136	C POMERA 220N K250E6 85	C812
K114589	C PP PO 270N K250	C708
K1145895	C PP PO 270N K250	C710
K1145961	C PP PO 910N K250	C711
K1150625	C PPMERA 8N2J202E9 HV	C707
K1150772	C PPMERA 150N J630E9	C709
K115443	C PSMCAX 3N3J 63	C515
K1159121	C PP RA 680P J100E2	C501
K115928	C PP RA 3N3J 63E2	C503
K115932	C PP RA 4N7J 63E2	C507
K115936	C PP RA 6N8J 63E2	C506
K115949	C PP RA 3N3F 63E2	C309
K131411	Q BC549C N SS TO92	Q101,Q506,Q508,Q509,Q711,Q813
K131415	Q BC558 P SS TO92	Q505
K1314182	Q BC559C P SS TO92	Q501,Q502 ,Q507
K1314295	Q BC549B N SS TO92	Q602
K1314361	Q BD139 P TO126	Q802
K1314446	Q BD237 P TO126	Q806
K1314451	Q BD238 P P TO126	Q712,Q801
K1314651	Q BF245B FN SS TO92	Q301
K131491	Q BSX20 .2369 N SS TO18	Q503,Q504
K131621	D 1N4148 SW DO35	D303,D304,D825,D826
K131627	D BAV21 SW DO35	D702,D801,D804,D817
K131628	D BAW62 SW DO35	D103,D104,D105,D201,D202,D203, D301,D302,D501,D502,D503,D504, D706,D720,D803,D818,D820
K1316361	D BAT85 SCH DO34	D721,D821
K131637	D BA158 SW	D505,D601,D620,D708,D709,D806, D500,D810,D811
K131716	D ZEN 5V1 0W5 C DO35	Z301
K131720	D ZEN 6V2 0W5 C DO35	Z602,Z707
K131754	D ZEN 3V3 0W5 C DO35	Z703,Z805
K131771	D ZEN 150V 0W5 C DO35	Z814
K131789	D ZEN 18V BZX79C DO35	Z816
K131906	D BYV96E AFSR SOD57	D710,D711,D802
K131939	D BY228 R SOD64	D701
K131948	D BYD33D FSR SOD81	D816
K131949	D BYV26A FSR SOD57	D704,D705
K131950	D BYV27/150 R SOD57	D812,D813
K132516	Q BF422 SS TO92	Q708,Q709,Q710,Q811
K132552	Q BF423 P SS TO92	Q810
K132557	Q BC635 N SS TO92	Q702,Q807
K132579	Q BD651 DN P TO220	Q701
K132762	U 2595 TDA DIP18 P	I303
K132811	U 1082 TDA DIP16 P	I205

ORDER NO.	DESCRIPTION	ITEM
K107536	R MCE V 1K M 0W5 M10TS	P501
K111148	C EL AX 220M T 16E10 85	C512
K1111841	C EL AX 1M T 40E7 85	C375
K111185	C EL AX 22M T 40E9 85	C607
K1111937	C EL AX1000M M 35E14105	C601
K1111942	C EL AX4700M Z 40E20 85	C605
K111235	C EL AX 100M T160E18 85	C804
K1113999	C EL RA 47M M160E3 105	C608,C815
K111466	C EL RA 100M Z 16E2 85	C203,C204,C205,C317,C514
K1114689	C EL RA 470M M 16E2 105	C526,C715
K111476	C EL RA 47M Z 25E2 85	C402
K111477	C EL RA 100M Z 25E2 85	C324,C509
K1114787	C EL RA 220M M 25E2 105	C610,C612,C818
K1114807	C EL RA 10M M 35E2 105	C616
K1114877	C EL RA 100M M 35E2 105	C602
K1114917	C EL RA 1M M100E2 105	C719,C720,C721
K111510	C EL RAMI22M M 25E2 85	C524
K111531	C EL RAMI10M M 35E2 85	C305,C618
K111548	C EL RAMI 2M2M 50E2 85	C306
K111550	C EL RAMI 4M7M 50E2 85	C308
K111562	C EL RA 47M M200E2 85	C609,C613
K111569	C EL RAMI10M M250E2 85	C813
K111678	C EL BRA 10M M 25E2 85	C211,C213
K111769	C PPMERA 3N3J152 HV	C805
K111780	C PPMERA 9N1J152 HV	C722
K112098	C CE DI 470P M400E5	C723
K112242	C NP0 MI 100P J 63E2	C502
K112362	C N750MI 100P J 63E2	C520
K112365	C N750MI 180P J 63E2	C819
K112366	C N750MI 220P J 63E2	C513
K112368	C N750MI 330P J 63E2	C603
K112739	C CE MI 1N K 63E2	C371
K112743	C CE MI 2N2K 63E2	C320,C511
K112743	C CE MI 2N2K 63E2	C321,C713
K1127830	C X7R MU 100N K 50E2 125	C112,C113,C215,C216,C401,C403, C404,C517,C518,C619
K112819	C CE DI 330P M400E3	C817
K112837	C CE DI 10N S400E3	C703,C803
K112920	C COG MU 4N7J 63E2 125	C301,C302
K1137121	C POMERA 10N K100E2 85	C107,C109,C311,C806
K1137141	C POMERA 15N K100E2 85	C111,C370,C816
K1137151	C POMERA 18N K100E2 85	C207,C208,C209,C210
K1137151	C POMERA 18N K100E2 85	C209,C210
K1137161	C POMERA 22N K100E2 85	C307,C808
K1137181	C POMERA 33N K100E2 85	C109,C801
K113720	C POMERA 47N K 63E2 85	C522, C604
K113724	C POMERA 100N K 63E2 85	C303,C315,C323,C519,C521,C615, C714
K113726	C POMERA 150N K 63E2 85	C807
K113728	C POMERA 220N K 63E2 85	C108,C110,C201,C202,C206,C313, C508,C606

ORDER NO.	DESCRIPTION	ITEM
K367406	RVT EYE D1.7 L3	
K367502	WSHR DIN6798 A 3.2 F Z	,0015,0027,0047,005 ,0065, 051
K367511	WSHR DIN6798 A 2.2 F Z	0012,0022,0042,0071,061
K367600	NUT BLOC M 3	0061
K594117	LABEL 6 WHI	010
K716560	PCB MN46 OCM28 FRM 7615	PC
K722169	FIX MN46 OCM28 Q CRT SOC	0091
K761532D	UN FRM MN46 OCM28	
K761960	UN SUB MN46 HOR/VER	020
K761977	UN SUB MN46 BLANKING	Q812
K773028	CH SMP TV 31	L601,L602,L604
K773054	COIL N32.5 C1.6 D0.25	L607
K774215	CH SMP PJ45 G	L603,L605
K7742171	COIL SHIFT MN46 HOR	L704
K774219	CH EE25 15 MH	L701
K774221	CH AX	L801
K774222	COIL LIN MN46 OCM28	L703
K774300	T MN46 DVR OCM28	T701,T801
K7743011	CRF BLOC EHT 25KV	
K775164	SPO CHOKE HOR.DEFL.	L606
K780050	PCB MN46 OCM28 HOR/VER SU	PC
K801151	SPR L 6.5 D 9.75D 6.9 P	0026,0046
K802372	HTSNK MN46 OCM28 DRI HOR	001
K802686	FIX PJ49 Q SPG 1X M3	0064
K802777	FIX PJ49 Q SPG 2X M3	0064
K804038	HTSNK MN46 OCM Q FIX	030
K804119	HTSNK MN46 OCM28 HOR V2	0020
K804120	HTSNK MN46 OCM28 EHT V2	0040
K804121	HTSNK MN46 OCM28 VER V2	0060
K804131	ISOL MN40 SHEET 30X60	0066
V111489	C EL RA 470M M 35E 105	C611
V3136134	CON MOB TE 2.36 P 4 N	J601

2.K761960 UN SUB MN46 HOR/VER

ORDER NO.	DESCRIPTION	ITEM
K101131	R CF H390E J 0W25	R840,R841,R842
K101136	R CF H 1K J 0W25	R730,R731,R732
K113724	C POMERA 100N K 63E2 85	C820,C821,C822
K313336	SPR PCB L 5.3	
K313366	J CIS MBS P 1 L8.7 RL	
K34216805	UN WIRE WHI AWG24 L 5	W1
K789013	PCB MN46 HOR/VER SUB 76	PC

ORDER NO.	DESCRIPTION	ITEM
K132812	U 3654 TDA SIP9 P	I601
K132913	Q BUP101 P TO218	Q803
K132923	Q BC556 P SS TO92	Q804
K132924	Q BC546 N SS TO92	Q805
K132929	Q BDT60 DP P TO220	Q601
K132939	Q BUV27AF P TO220	Q704,Q808
K132946	Q BU2508A P SOT93	Q703
K132947	Q MJH11019 DP P TO218	Q705,Q706,Q707
K1330191	Q ACC WSHR TO126	0025,0045,0069
K133039	SPR L 8 D 4 D 1.2 C	008
K133052	Q ACC HTSNK TO126	009
K133064	Q ACC INSUL MICA SOT93	0029
K134001	U 7805 TO220 P	I603
K134002	U 7812 TO220 P	I304,I602
K134113	U 084 TL DIP14 P	I302
K134114	U 393 LM DIP8 P	I504
K134116	U 353 LF DIP8 P	I207,I503
K134118	U 532 E DIP8 P	I206
K134120	U 5514 E DIP14 P	I203
K134121	U 339 LM DIP14 P	I401,I402
K134126	U 356 DIP8 P	I204
K137303	U 4066B DIP14 P	I201,I202
K1373781	U 4538B DIP16 P	I104,I105,301
K137551	U 74HCT14 DIP14 P	I101
K137590	U 74HC4538 DIP16 P	I501
K1375971	U 74HC14 DIP14 P	I502
K137624	U 4532B DIP16 P	I403
K306769	T EHT AT2077/85A	T802
K313366	J CIS MBS P 1 L8.7 RL	
K313535	J MT MBT P 12 R2.5 BLA	
K3135372	J MT MBT P 6 R2.5 RED	
K3135866	J MT MBT P 7 R2.5 BLU	
K313587	J MT MBT P 8 R2.5 BLA	
K3135882	J MT MBT P 11 R2.5 RED	
K315331	SLDRLUG SCR 1TAG D3.2 L12	
K34216803	UN WIRE WHI AWG24 L 3	W1
K34216806	UN WIRE WHI AWG24 L 6	W4
K34216807	UN WIRE WHI AWG24 L 7	W2
K34216813	UN WIRE WHI AWG24 L13	W3
K348088	FSTNR W DIA20 SCR FIX	0052
K348100	W JUMP 0.6 AUTOM	8100
K348102	W JUMP 0.6 7.5	
K3482007	SLV OIL D 1.5 L 7.5 RED	
K348204	SLV OIL D 1.5 L20 RED	
K3620157	SCR DIN84 M 2.5X 12	0011,0021,0041,007
K3620167	SCR DIN84 M 2.5X 16	060
K362123	SCR DIN7985 M 3 X 10	0014,0049,0062,0063
K362124	SCR DIN7985 M 3 X 12	0068,050
K3621255	SCR DIN7985 M 3 X 16	0024,0044
K3626705	SCR DIN921 M 3 X 10	0053
K366102	NUT DIN934 M 3	0028,0048,0067,052
K366110	NUT DIN934 M 2.5	0013,0023,0043,0072,062

5. K7615328 SCM33

ORDER NO.	DESCRIPTION	ITEM
K100352	R MF V 22K J 0W25 E1	R812
K1011059	R CFFH 2E7 J 0W25	R728
K101112	R CF H 10E J 0W25	R385,R607
K101114	R CF H 15E J 0W25	R837
K101118	R CF H 33E J 0W25	R703,R806
K101124	R CF H100E J 0W25	R532,R850
K1011254	R MF H120E F 0W6	R844
K101127	R CF H180E J 0W25	R335
K101128	R CF H220E J 0W25	R213
K101129	R CF H270E J 0W25	R407
K101130	R CF H330E J 0W25	R408,R530,R605,R818
K101131	R CF H390E J 0W25	R606
K101132	R CF H470E J 0W25	R809,R845
K101133	R CF H560E J 0W25	R202,R324
K101134	R CF H680E J 0W25	R203,R406,R805
K101136	R CF H 1K J 0W25	R204,R220,R221,R224,R227,R302, R329,R336,R425,R502,R508,R512, R513,R514,R542,R543,R544,R603, R701,R705,R734,R802,R814,R815, R827
K101137	R CF H 1K2 J 0W25	R404,R405,R409,R851
K101138	R CF H 1K5 J 0W25	R226,R303,R323,R340,R403
K101139	R CF H 1K8 J 0W25	R801
K101140	R CF H 2K2 J 0W25	R310,R311,R511,R518,R520,R715, R718,R721,R727,R735,R846
K1011402	R MF H 2K2 F 0W25	R509
K101141	R CF H 2K7 J 0W25	R118,R225,R304,R510
K101142	R CF H 3K3 J 0W25	R219,R328
K101144	R CF H 4K7 J 0W25	R114,R602,R604,R834
K1011444	R MF H 4K7 F 0W6	R507
K101145	R CF H 5K6 J 0W25	R501,R610
K1011454	R MF H 5K6 F 0W6	R317,R320,R377
K101146	R CF H 6K8 J 0W25	R222,R504,R540
K101147	R CF H 8K2 J 0W25	R223,R238,R537
K1011474	R MF H 8K2 F 0W6	R321
K101148	R CF H 10K J 0W25	R116,R117,R206,R207,R208,R209, R214,R215,R216,R217,R230,R231, R232,R233,R234,R235,R236,R309, R312,R313,R401,R417,R418,R419, R420,R421,R422,R423,R503,R517, R519,R523,R525,R609,R612,R613, R725,R726,R813,R824
K1011484	R MF H 10K F 0W6	R210,R211,R319
K101149	R CF H 12K J 0W25	R240,R327
K101150	R CF H 15K J 0W25	R330,R521
K101152	R CF H 22K J 0W25	R228,R229,R237,R524,R526,R541, R833,R838,R839
K101153	R CF H 27K J 0W25	R241
K101154	R CF H 33K J 0W25	R115,R205,R505
K101155	R CF H 39K J 0W25	R810
K101156	R CF H 47K J 0W25	R316,R326

3.K761977 UN SUB MN46 BLANKING

ORDER NO.	DESCRIPTION	ITEM
K100352	R MF V 22K J 0W25 E1	R1
K112098	C CE DI 470P M400E5	C2
K1137121	C POMERA 10N K100E2 85	C1
K1316217	D 1N4148 SW DO35	D1 ,D2
K132516	Q BF422 SS TO92	Q2
K132552	Q BF423 P SS TO92	Q1
K313366	J CIS MBS P 1 L8.7 RL	J1 ,J4 ,J5
K34216804	UN WIRE WHI AWG24 L 4	W1
K34216828	UN WIRE WHI AWG24 L28	W2
K789047	PC MN46 BLANKING SUB	0001

4.K7615325

See parts list K7615326 except:
- C813 (10M) is removed
- R223 (22K) is replaced by 8K2 R CF (K101147)
- R226 (1K) is replaced by 1K5 R CF (K101138)
- R241 (15K) is replaced by 27K R CF (K101153)
- R242 is removed
- R610 (6K8) is replaced by 5K6 R CF (K101145)
- R 1E is removed
- R 33M R HV is added (K104690)

ORDER NO.	DESCRIPTION	ITEM
K111466	C EL RA 100M Z 16E2 85	C203,C204,C205,C317,C514
V1114689	C EL RA 470M M 16E2 105	C715,C823
K111476	REPLACED BY V1115119	C402
K111477	C EL RA 100M Z 25E2 85	C324,C509
K1114787	REPLACED BY V111478	C610,C612,C818
V1114789	C EL RA 220M M 25E2 85	C512
V1114879	C EL RA 100M M 35E2 105	C602
V111489	C EL RA 470M M 35E2 105	C611
K1114917	C EL RA 1M M100E2 105	C719,C720,C721
K111510	REPLACED BY V1115109	C524
K111531	REPLACED BY V1115319	C305,C618
K1115318	REPLACED BY V1114942	C508
V1115319	C EL RA 10M M 50E2 105	C616
K111548	REPLACED BY V1115489	C306
K111550	C EL RA 4M7M 50E2 85	C308
K111562	C EL RA 47M M200E2 85	C609,C613
K111569	C EL RA 10M M250E2 85	C813
V1116332	C EL RA4700M M 35E4 85	C605
V111679	C EL BRA 10M M 25E2 85	C211,C213
V111681	C EL BRA 22M M 25E2 85	C807
C1117221	C PPMERA 15N J162E11 HV	C707
K111780	C PPMERA 9N1J162E9 HV	C722
K112098	C CE DI 470P M400E5 Y	C723
V112242	C NP0 MI 100P G 63E2	C502
K112362	C N750MI 100P J 63E2	C520
V112365	C N750MI 180P G 63E2	C819
V112366	C N750MI 220P G 63E2	C513
V112368	C N750MI 330P G 63E2	C603
V112739	C CE MI 1N K 63E2	C371,C806
C112743	C CE MI 2N2K 63E2	C320,C321,C511,C713
V1127830	C X7R MU 100N K 50E2 125	C ,C112,C113,C215,C216,C401, C403,C404,C517,C518,C619
V112819	C CE DI 330P M400E3	C817
V112831	C CE DI 3N3S400E3	C515
C112837	C CE DI 10N S400E3	C703,C803
K112920	C COG MU 4N7J 63E2 125	C301,C302
K1137121	C POMERA 10N K100E2 85	C107,C311,C801
K1137141	C POMERA 15N K100E2 85	C111,C370,C816
K1137151	C POMERA 18N K100E2 85	C207,C208,C209,C210
K1137161	C POMERA 22N K100E2 85	C307,C808
K1137181	C POMERA 33N K100E2 85	C109
K113729	C POMERA 270N K 63E2 85	C322,C617
C113890	C PETPFP 2M2K100E6	C304,C718
V1140502	C POMERA 470N K100E6 85	C712
V114084	C POMERA 47N K 63E2 85	C522,C604
V114088	C POMERA 100N K 63E2 85	C303,C315,C323,C519,C521,C615, C714
V114090	C POMERA 220N K 63E2 85	C108,C110,C201,C202,C206,C313, C606
V114091	C POMERA 330N K 63E2 85	C525
V114092	C POMERA 470N K 63E2 85	C212,C214,C217,C218,C312,C705, C810
C114110	C POMERA 4M7K100E11 85	C510,C702
K114136	REPLACED BY V114046	C812
K1145961	REPLACED BY V1145961	C711

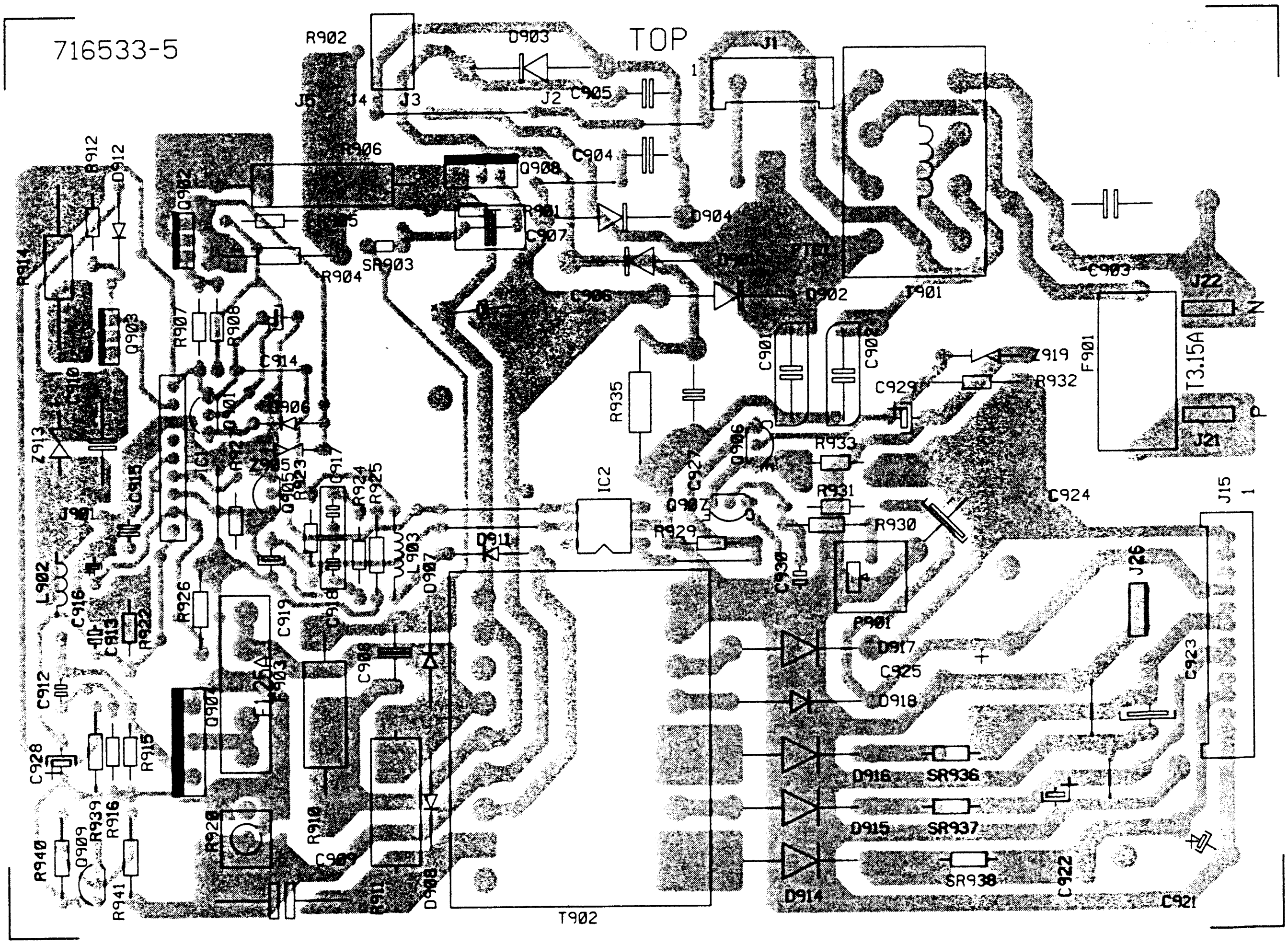
ORDER NO.	DESCRIPTION	ITEM
K101157	R CF H 56K J 0W25	R722,R723,R724
K101158	R CF H 68K J 0W25	R331,R811
K101159	R CF H 82K J 0W25	R808
K101160	R CF H100K J 0W25	R515,R536,R710,R711,R712,R826
K101161	R CF H120K J 0W25	R119
K101162	R CF H150K J 0W25	R529
K101164	R CF H220K J 0W25	R516,R527
K101165	R CF H270K J 0W25	R212,R307
K101166	R CF H330K J 0W25	R380
K101168	R CF H470K J 0W25	R239,R308,R413,R414,R825
K101169	R CF H560K J 0W25	R314
K101170	R CF H680K J 0W25	R533
K101171	R CF H820K J 0W25	R412,R415
K101172	R CF H 1M J 0W25	R218,R301,R315,R410,R411,R416, R831
K101177	R CF H 2M7 J 0W25	R535
K101206	R CF H 3E3 J 0W5	R601
V101216	R MF H 22E J 0W5	R707,R835
K101220	R CF H 47E J 0W5	R318,R534
K101226	R CF H150E J 0W5	R702,R807
K1012505	R MF H 15K J 0W5	R832
K1013189	R CFFH 33E J 1W	R816
K101332	R CF H470E J 1W	R709
K1024209	R MF H162K F 0W6	R522
K1025203	R MF H 16K2 F 0W4	R402
K1025541	R MF H 30K G 0W25	R120
V1026006	R MF H 1K F 0W6	R506
V1026007	R MF H 10K F 0W6	R528
C1026008	R MF H100K F 0W6	R305,R306
V1026926	R MF H 9K09F 0W6	R322
K103002	R MF H 1E5 J 1W	R614
K103049	R MF H 12K J 1W	R720
K103050	R MF H 15K J 1W	R713,R716,R719
K103051	R MF H 18K J 1W	R714,R717
K103224	R MO H100E J 1W5	R706
K103226	R MO H150E J 1W5	R611
K103229	R MO H270E J 1W5	R608
V103614	R WW H 1E5 K 4W	R729
K103623	R WW H 8E2 K 4W	R828
C103632	R WW H 47E K 4W	R803
V103636	R WW H100E J 4W	R817
K103721	R WW H 27E K 5W	R704
C1046621	R HV H 2M2 J 1W 10000	R733
C106511	R TWW H100E K 2W D20TC	P701
V106733	R TCE H100K K 0W5 S10TS	P502
V106827	R TCE V 2K K 0W5 S10SS	P301
V106830	R TCE V 20K K 0W5 S10SS	P202,P203,P204
V107010	R TCE H 20K M 0W5 S7 TS	P812
K107536	R MCE V 1K K 0W5 M10TS	P501
V1111829	C EL AX1000M M 35E14105	C601
K1111841	C EL AX 1M T 40E7 85	C375
K111185	C EL AX 22M T 40E9 85	C607
K111235	C EL AX 100M T160E18 85	C804
C1113999	C EL RA 47M M160E3 105	C608,C815

ORDER NO.	DESCRIPTION	ITEM
V134001	U 7805 TO220 P	I603
C134002	U 7812 TO220 P	I304,I602
V134005	U 339 LM DIP14 P	I401,I402
K134113	U 084 TL DIP14 P	I203,I302
K134118	U 532 NE DIP8 P	I206
K134126	U 356 DIP8 P	I204
V134129	U 393 LM DIP8 P	I504
V137303	U 4066B DIP14 P	I201,I202
V1373531	U 74HCT14 DIP14 P	I101
K1373781	U 4538B DIP16 P	I104,I105,I301
K137590	U 74HC4538 DIP16 P	I501
K1375971	U 74HC14 DIP14 P	I502
K137624	U 4532B DIP16 P	I403
V137719	U 2595 TDA DIP18 P	I303
K306769	T EHT AT2077/85A	T802
K313535	J MT I MBT P12 R1SN BLK	J15
K3135372	J MT I MBT P 6 R1SN RED	J6
K3135866	J MT I MBT P 7 R1SN BLU	J12
K313587	J MT I MBT P 8 R1SN BLK	J14
K3135882	J MT I MBT P11 R1SN RED	J5
V3136134	J LV MBT P 4 R4M8	J601
K3153151	J RVT MBT D 2.3L13	R828
V315331	SLDRLUG SCR 1TAG D3.2 L12	R614
K348088	FSTNR W DIA20 SCR FIX	0052
K348100	W JUMP 0.6 AUT	8100
C3482007	SLV OIL D 1.5 L 7.5 RED	SPR
C348204	SLV OIL D 1.5 L 20 RED	SPR
V3492086	WIRE UNIT G 150MM R 00	W5
K362122	SCR D7985 M 3 X 8 S Z	0012,0021,005 ,007
K362123	SCR D7985 M 3 X 10 S Z	0011,0062
K362124	SCR D7985 M 3 X 12 S Z	0068,050
V362125	SCR D7985 M 3 X 16 S Z	0024,0044
K3626705	SCR D921 M 3 X 10 S B	0053
V366102	NUT D934 M 3 S Z	0028,0048,0067,052
K367502	WSHR D6798 A 3.2 S Z	0013,0022,0047,0051,0065,051
V367600	NUT BLOC M 3	0061
K594117	LABEL 6 WHI	010
K716560	PCB MN46 OCM28 FRAME 07	PCB
K722169	Q ACC FIX 3.5MM TO202	0091
K761532D	UN FRM MN46 OCM28	
K761960	UN SUB MN46 HOR/VER 00	020
K761977	UN SUB MN46 BLANKING	Q812
C773028	CH RA NS 220 UH	L601,L602,L604
V773054	CHOKE RA NS 7.5UH Y	L607
K774215	CH SMP PJ45 G 01	L603,L605
K7742171	COIL SHIFT MN46 HOR 01	L704
K774219	CH EE25 15 MH	L701
K774221	CH AX	L801
K774222	COIL LIN MN46 OCM28 01	L703
K774300	T MN46 DVR OCM28 03	T701,T801
K7743012	CRF BLOC EHT 25KV BL	J802
K775164	SPO CHOKE HOR.DEFL.	L606
K801151	SPR L 6.5 D 9.75D 6.9 P	0026,0046
K802372	HTSNK MN46 OCM28 DRI HOR	001
K802686	FIX PJ49 Q SPG 1X M3 01	0063

ORDER NO.	DESCRIPTION	ITEM
V1150103	C PPMERA 3N3J162E9 HV	C805
V115020	C PPMERA 18N J162E11 HV	C707
V1150692	C PPMERA 270N K250E9	C708,C710
K1150772	C PPMERA 150N J630E9	C709
V115159	C PP RA 680P J100E2 85	C501
V115167	C PP RA 4N7J 63E2 85	C507
K115928	REPLACED BY V115165	C503
K115936	C PP RA 6N8J 63E2 85	C506
K115949	C PP RA 3N3F 63E2 85	C309
V131411	Q BC549C N SS TO92	Q101,Q506,Q508,Q509,Q711,Q813
K131415	REPLACED BY V1314181	Q505
V1314182	Q BC559C P SS TO92	Q501,Q502,Q507
K1314295	Q BC549B N SS TO92	Q602
V1314361	Q BD139 N P TO126	Q802
C1314446	Q BD237 N P TO126	Q806
C1314451	Q BD238 P P TO126	Q712,Q801
V1314652	Q BF245A FN SS TO92	Q301
K131491	Q BSX20 N SS TO18	Q503,Q504
V1315045	D BAT85 SCH DO34	D721,D821
V1316211	D 1N4148 SW DO35	D ,D303,D304,D825,D826,D830
V131627	D BAV21 SW DO35	D702,D801,D804,D817
V131628	D BAW62 SW DO35	D103,D104,D105,D201,D202,D203, D301,D302,D501,D502,D503,D504, D706,D720,D803,D818,D820
V131637	D BA158 F R DO41	D601,D620,D708,D709,D806,D810, D811
V131716	D ZEN 5V1 0W5 C DO35	Z301
C131720	D ZEN 6V2 0W5 C DO35	Z602,Z707
V131754	D ZEN 3V3 0W5 C DO35	Z703,Z805
K131771	D ZEN 150V 0W5 C DO35	Z814
K131789	D ZEN 18V BZX79C DO35	Z816
V1319033	D BYD33J FSR SOD81	D816
K131906	D BYV96E AFSR SOD57	D710,D711,D802
V131917	D BY228 R SOD64	D701
K131949	D BYV26A FSR SOD57	D704,D705
V131954	D BYV27-200 R SOD57	D812,D813
V1321941	U 353 LF DIP8 P	I207,I503
V132516	Q BF422 N SS TO92	Q708,Q709,Q710,Q811
V132552	Q BF423 P SS TO92	Q810
V132555	Q BC556B P SS TO92	Q804
K132557	Q BC635 N SS TO92	Q702,Q807
V1325601	Q BUV27AF N P SOT186	Q704,Q808
V132579	Q BD651 DN P TO220	Q701
V132760	U 3654 TDA SOT131 P	I601
K132811	U 1082 TDA DIP16 P	I205
K132913	Q BUP101 P TO218	Q803
K132924	REPLACED BY V132554	Q805
K132929	Q BDT60 DP P TO220	Q601
K132946	REPLACED BY V132572	Q703
K132947	Q MJH11019 DP P TO218	Q705,Q706,Q707
V1330016	Q ACC ISO SIL 26X 19	0029
K1330191	Q ACC WSHR MTL TO126	0025,0045,0069
V133039	SPR L 8 D 4 D 1.2 K	008
K133052	Q ACC HTSNK TO126	009
V1330944	Q ACC ISO SIL ADH 22X 17	0066

Important:
PCB no. K716533 is used in unit nos. **K7615331, K761993**, **K7619939** and **K761969**
PCB no. K789032 is used in unit nos. **K761992** and **K7619929**
PCB no. K789017 is used in unit no. **K761970**

Please refer to the parts lists of these units in the back of this chapter.


716533-5
TOP
R902
D903
J5
J4
J3
J2
C905
J1
C904
R906
Q908
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D904
SR903
R904
R905
Q902
R912
D912
R914
R907
R908
Q903
C914
D906
Z913
Q910
D901
C915
J901
L902
C916
C913
R922
R926
C912
C928
R939
R916
R915
Q901
R940
Q909
R941
R920
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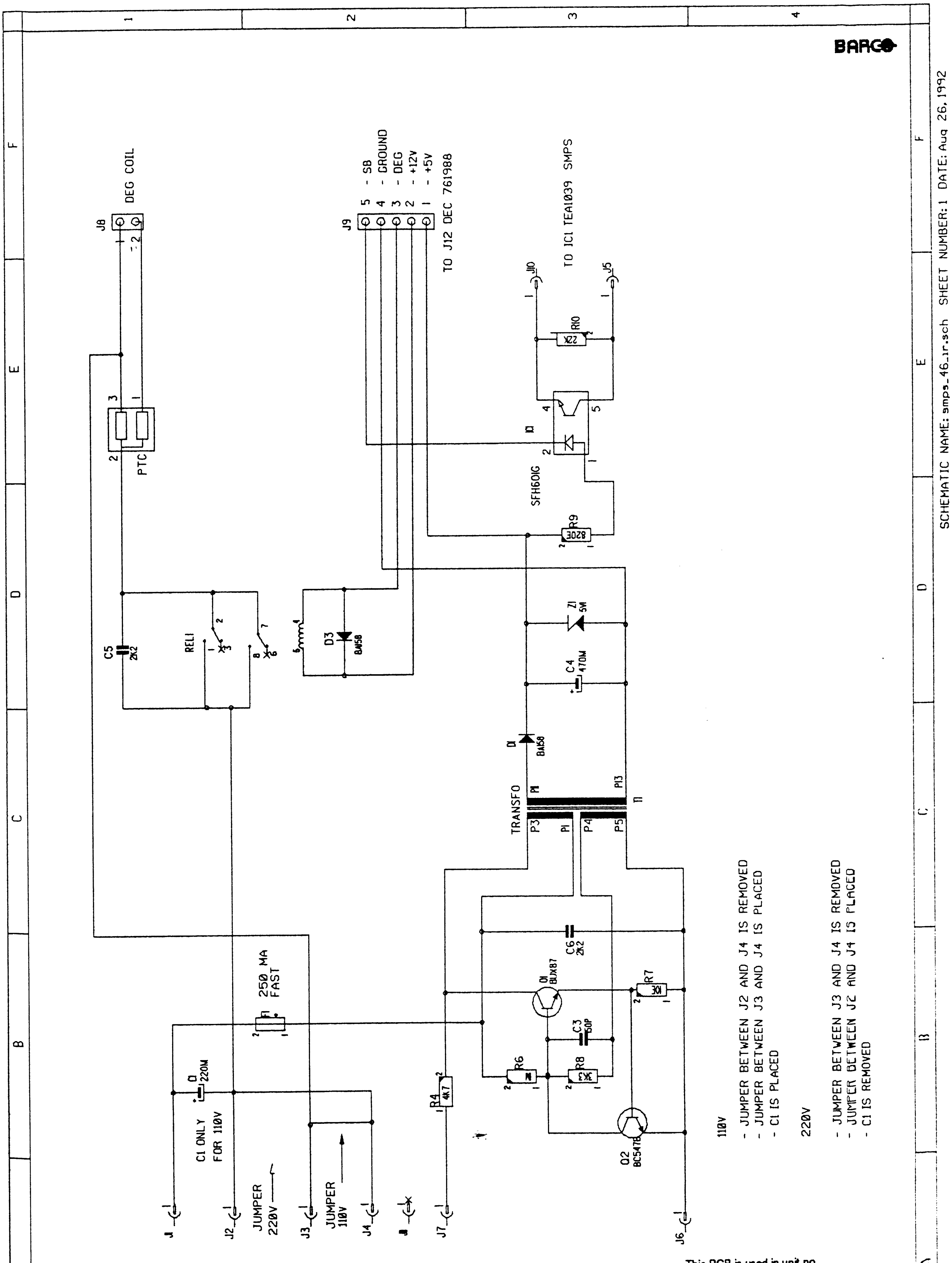
C909
D911
D908
C906
R935
D902
T901
C901
C902
C903
Z919
C929
R932
F901
T3.15A
J22
N
J21
P
J15
1
Q906
R933
C927
Q907
R931
R930
C924
IC2
R929
C930
P901
J26
D917
C925
D918
C923
D916
SR936
D915
SR937
D914
SR938
C922
C921
T902
R923
Q905
C917
R924
R925
L903
D907
C918
C919
C910
F903
R911

This PCB is used in unit no.
K761993,K7619939

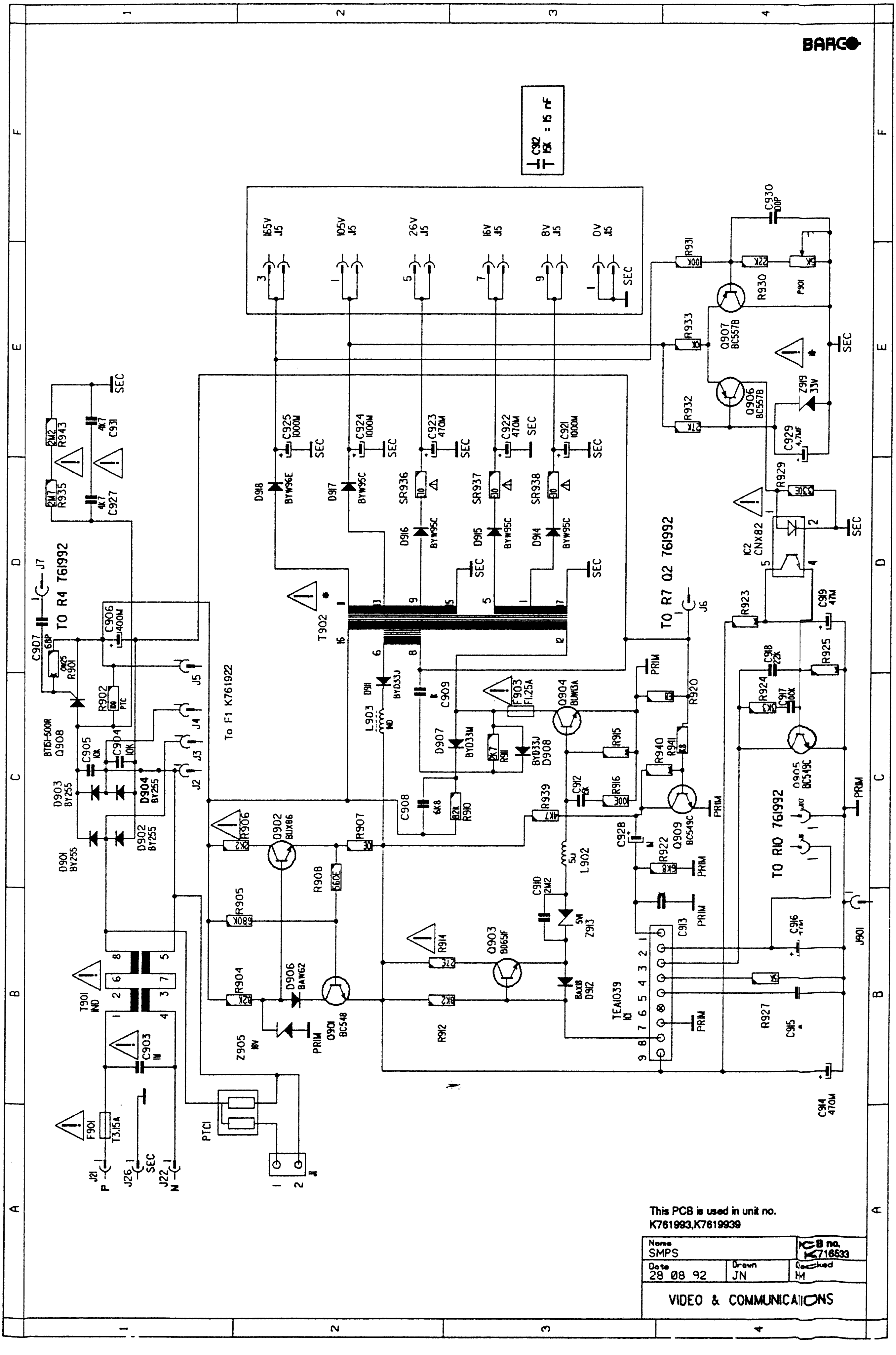
Name SUPPLY BOARD		PCB no. K716533
Date 25/06/92	Drawn RIP	Checked RIP
Video & Communications		


BARCO
SCHEMATIC NAME: smps_46_ir.sch SHEET NUMBER: 1 DATE: Aug 26, 1992
DEG COIL
J8
J9
5 - SB
4 - GROUND
3 - DEG
2 - +12V
1 - +5V
TO J12 DEC 761988
TO IC1 TEA1039 SMPS
J10
J5
R10
22K
IC1
SFH601G
R9
820E
PTC
C5
2K2
REL1
D3
BAV58
Z1
5V1
C4
470M
D1
BAV58
TRANSFO
T1
P3
P1
P4
P5
P11
P13
C6
2K2
250 MA
FAST
F1
Q1
BUX87
R7
10E
C3
50P
R6
R8
3K3
R4
4K7
C1
220M
C1 ONLY
FOR 110V
Q2
BC547B
JUMPER
220V
JUMPER
110V
J1
J2
J3
J4
J7
J6
110V
- JUMPER BETWEEN J2 AND J4 IS REMOVED
- JUMPER BETWEEN J3 AND J4 IS PLACED
- C1 IS PLACED
220V
- JUMPER BETWEEN J3 AND J4 IS REMOVED
- JUMPER BETWEEN J2 AND J4 IS PLACED
- C1 IS REMOVED

This PCB is used in unit no.
K761992,K7619929

Name		PCB no.
SMPS 46		K789032
Date	Drawn	Checked
28 08 92	JN	RDF

VIDEO & COMMUNICATIONS

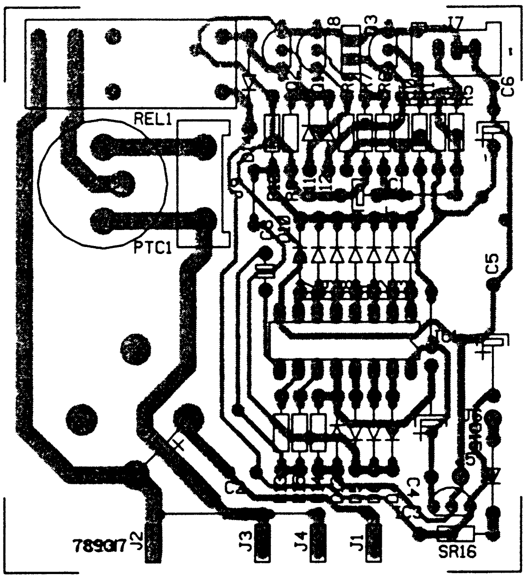

BARCO
C912 15K : 15 nF
165V J5
105V J5
26V J5
16V J5
8V J5
0V J5
SEC
T902
T901 IND
F901 T3.15A
F903 F1.25A
PTC1
J21 P
J26 SEC
J22 N
J2
J3
J4
J5
J6
J7
J901
TO R4 761992
To F1 K761922
TO R7 Q2 761992
TO R10 761992
PRIM
Q902 BUX86
Q901 BC548
Q903 BD65F
Q904 BUK13A
Q905 BC549C
Q906 BC557B
Q907 BC557B
Q908 BT151-500R
Q909 BC549C
IC1 TEA1039
IC2 CNX82
D901 BY255
D902 BY255
D903 BY255
D904 BY255
D906 BAW62
D907 BYD33M
D908 BYD33J
D911 BYD33J
D912 BAX18
D914 BYW95C
D915 BYW95C
D916 BYW95C
D917 BYW95C
D918 BYW96E
Z905 18V
Z913 5V1
Z919 33V
L902 5u
L903 100
SR936
SR937
SR938
C903 1M
C904 10K
C905 10K
C906 400M
C907 68P
C908 6K8
C909
C910 2M2
C912 15K
C913
C914 470M
C915
C916
C917 100K
C918 22K
C919 47M
C921 1000M
C922 470M
C923 470M
C924 1000M
C925 1000M
C927 4K7
C928 1M
C929 4.7MF
C930 100P
C931 4K7
R901
R902 PTC
R904 82K
R905 680K
R906
R907
R908 560E
R910 82K
R911 2K7
R912 8K2
R914 27E
R915
R916 100E
R920
R922 6K8
R923
R924 5K3
R925
R927
R929 330E
R930
R931 100K
R932 27K
R933 1K
R935 2M7
R939 4K7
R940
R941 6K8
R943 2M2
P901 5K

This PCB is used in unit no.
K761993,K7619939

Name SMPS		PCB no. K716533
Date 28 08 92	Drawn JN	Checked HM

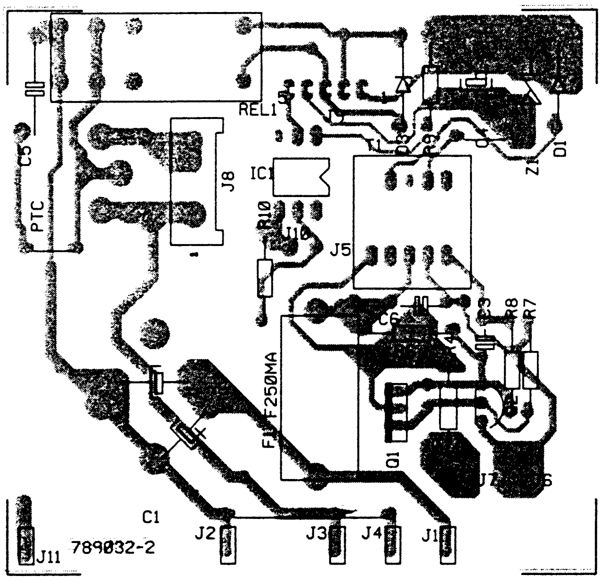
VIDEO & COMMUNICATIONS

SCHEMATIC NAME: smps_46_ir.sch SHEET NUMBER: 2 DATE: Aug 26, 1992


REL1
PTC1
C5
C6
C2
C3
J2
J3
J4
J1
SR16
789017

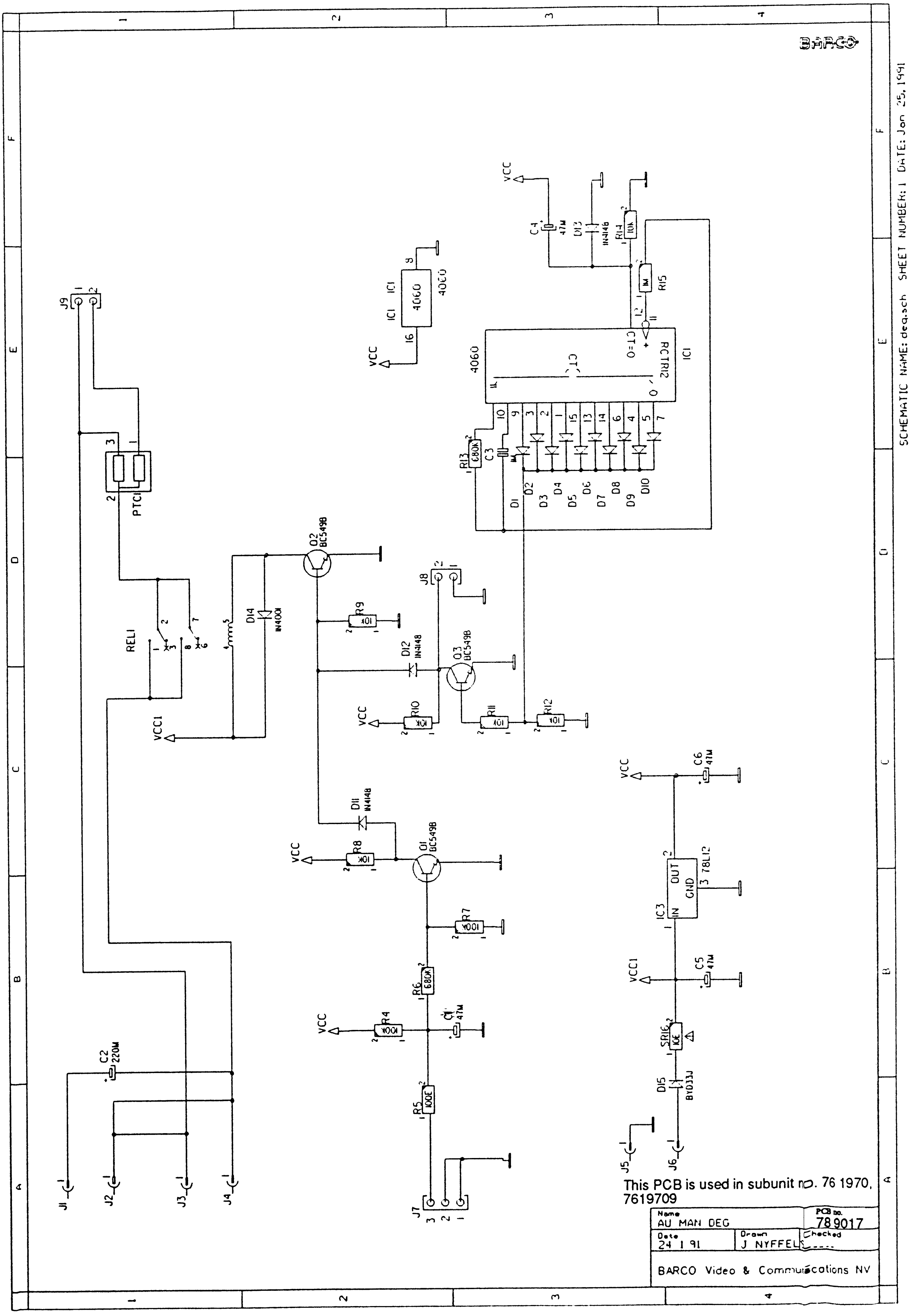
This PCB is used in unit nos.
K761970, K7619709

Name SUBUNIT PER. DEGAUSS		**PCB no.** K789017
Date 25/06/92	**Drawn** RIP	**Checked** RIP
Video & Communications		


REL1
C5
PTC
J8
IC1
R10
J10
J5
D3
R9
D1
C6
C3
R8
R7
F1 F250MA
Q1
C1
J11
789032-2
J2
J3
J4
J1

This PCB is used in unit no.
K761992,K7619929

Name UNIT DEGAUSS		**PCB no.** K789032
Date 25/06/92	**Drawn** RIP	**Checked** RIP
Video & Communications		



BARCO
SCHEMATIC NAME: deg.sch SHEET NUMBER: 1 DATE: Jan 25, 1991
J1
J2
J3
J4
J5
J6
J7
J8
J9
C1 47M
C2 220M
C3
C4 47M
C5 47M
C6 47M
R4 100K
R5 100E
R6 680K
R7 100K
R8 10K
R9 10K
R10 10K
R11 10K
R12 10K
R13 680K
R14 10K
R15 1M
SR16 10E
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11 1N4148
D12 1N4148
D13 1N4148
D14 1N4001
D15 BYD33J
Q1 BC549B
Q2 BC549B
Q3 BC549B
REL1
PTC1
IC1 4060
RCTR12
CT=0
CT
IC3 78L12
IN
OUT
GND
VCC
VCC1

This PCB is used in subunit no. 76 1970, 7619709

Name	PCB no.
AU MAN DEG	789017

Date	Drawn	Checked
24 1 91	J NYFFEL	-----

BARCO Video & Communications NV

- Check the DC-voltage at J15, pin3.

- Adjust P901 to obtain 165V at pin 3 of J15.

When this voltage is adjusted correctly, all voltages should be O.K.

The power supply consists of 2 two boards. The main power supply is situated on board K761993, while the standby power supply and degauss circuit are mounted on board K761992.

Main power supply (K761993 on sheet 1)

The power supply is based on the switched mode flyback principle.
After being filtered (C903 and T901) and rectified (D901-904) the primary current enters transformer T902 at pin 16. This current is switched by Q904 at a fixed frequency (25 kHz) with a duty cycle which varies depending on the load.
Capacitor C916 (connected to pin 2 at IC1) determines the maximum duty cycle for slow start. At pin 4 and 5 of IC1 the switching frequency is settled by C915 and R927. The pulses for Q904 leave the IC at pin 8 and are amplified by Q903. The supply for this transistor comes from a auxiliary winding (pin 8-6) which also generates the power for IC1.
When the power supply starts, the primary current goes through R902, winding 16-12 and D907 hereby firing thyristor Q908. The voltage at C906 turns Q902 on via R904, R906 and R907. This results in the necessary supply during the time winding 8-6 isn't active.
If the voltage drop across R907 should become too high, Q901 is turned on which decreases the base voltage of Q902.
The primary current is measured by resistors R917-920 and filtered by R921, R922 and C913. The voltage at pin 1 of IC1 is determined by the primary current and will provide the necessary information to the IC for current protection purposes.
Two secondary windings provide the secondary voltages, one for +165 V, +105 V and +26 V and another one for + 16 and + 8 V. Every secondary voltage is rectified by a diode and filtered by a capacitor. A safety resistor protects the three lowest voltage outputs.
The 165 V is fed to a differential amplifier (Q906-Q907) which is supplied by the 105 V rail. In this amplifier the voltage at zener diode Z919 is compared to the voltage at the base of Q907. The latter is adjustable by P901 to enable a limited manual adjustment of the output voltages. The result of the comparison is fed to an optocoupler which provides galvanic isolation between the primary and secondary windings. The output of the optocoupler is connected to an inverter which determines the voltage at pin 3 of IC1. In this way the IC is informed about the secondary load and the 165 V will be kept at a constant level.

Standby supply (sheet 2)

After switching on the monitor, a DC voltage will be built up across C906. When this voltage is about 200V, Q1 will start conducting because its base gets 0.6V through the division R6/R8.
The raising current through T1-Q1 puts energy into the primary winding of T1. The sense resistor R7 measures the collector current. As soon as the voltage across R7 becomes 0.6V, Q2 switches on. As a result, the voltage at the base of Q1 will decrease, which causes a decrease of the voltage across the primary winding of T1. Consequently the secondary voltage (P4-P5) will drop too, which in turn causes Q1 to conduct less. This goes on until Q1 is completely cut-off.
When Q1 is completely switched off, the self-inducted e.m.f. inverses the voltage across the primary winding in order to maintain the current. As a result, the voltage at the secondary P11-P13 inverses too. D1 starts conducting and the stored energy is now given to C4.
At the moment T1 has lost its energy, Q1 starts conducting through R6-R8 again.
Because this is a constant low power supply, the output voltage is stabilized by Z1 connected parallel to the output. The output voltage is 5.1 V.

Standby operation

When you switch the monitor to standby, pin 20 of the micro-controller will get low. By this, a current will start flowing through the LED in the optocoupler IC2. The transistor of the optocoupler will saturate and the voltage at pin 5 decreases. Because this pin is connected to pin 2 of IC1, IC1 will switch off the drive for Q1.
When you select a programme while the monitor is in standby position, pin 20 of the micro-controller will become high. R10 is connected to pin 2 of IC1 and IC1 restarts the drive of Q904.

Degauss (sheet 2)

The degauss circuit is built around REL1/PTC1 and the degauss coil, connected to J8.
Automatic degaussing is obtained when switching on the monitor. The mains voltage is connected to the degauss coil through the relay and PTC1. The PTC resistor value increases and the current through the deflection coil decreases.
Manual and periodic automatic degaussing are also possible. When selecting the degauss function, a high level "degauss" signal (from the micro-contoller) is applied to the base of Q28 (on the decoder board). It switches on and as a result the relay closes, starting the degaussing.

1. K761993

ORDER NO.	DESCRIPTION	ITEM
C1147009	C CE DI 4N7M400 Y	C927,C931
K101111	R CF H 8E2 J 0W25	R907
K101124	R CF H100E J 0W25	R916
K101130	R CF H330E J 0W25	R929
K101133	R CF H560E J 0W25	R908
K101136	R CF H 1K J 0W25	R915,R923,R925,R940
K101139	R CF H 1K8 J 0W25	R941
K101140	R CF H 2K2 J 0W25	R924
K101143	R CF H 3K9 J 0W25	R922
K101144	R CF H 4K7 J 0W25	R901,R939
K101147	R CF H 8K2 J 0W25	R912
K101150	R CF H 15K J 0W25	R927
K101170	R CF H680K J 0W25	R905
K1011907	R CFFH E1 J 0W4	R937
K101252	R CF H 22K J 0W5	R930
K101253	R CF H 27K J 0W5	R932
K101260	R CF H100K J 0W5	R931
K1012907	R CFFH E1 J 0W5	R936,R938
K101359	R CF H 82K J 1W	R904
K103048	R MF H 10K J 1W	R933
K103341	R MO H 2K7 J 4W	R911
K103359	R MO H 82K J 4W	R910
K1035298	R WWFV 27E J 2W	R914
K1035528	R WWFH 2K2 J 2W	R906
K104182	R WW V 0E22K 4W	R920
K104662	R HV H 2M2 J 0W5 3500	R935,R943
K105200	R PTC 100E	R902
K111476	C EL RA 47M Z 25E2 85	C916,C919
K111479	C EL RA 470M Z 25E2 85	C922
K1114799	C EL RA 470M M 25E2 105	C914
K1114859	C EL RA 100M M200E3 105	C924,C925
K1114909	C EL RA1000M M 50E3 105	C921
K111546	C EL RAMI 1M M 50E2 85	C928
K111550	C EL RAMI 4M7M 50E2 85	C929
K111655	C EL RA 400M T385SKT 85	C906
K1117602	C PPMERA 1N J202 HV	C909
K112242	C NP0 MI 100P J 63E2	C930
K112739	C CE MI 1N K 63E2	C913
K112811	C CE DI 68P M400E3	C907
K112837	C CE DI 10N S400E3	C904,C905
K1137141	C POMERA 15N K100E2 85	C912
K1137161	C POMERA 22N K100E2 85	C918
K113724	C POMERA 100N K 63E2 85	C917
K113890	C PETPFP 2M2K100E6	C910
K114476	C PO RA 6N8K630	C908
K114716	C PO RA 1M M250 X	C903
K1159161	C PP RA 1N J100E2	C915
K131411	Q BC549C N SS TO92	Q901,Q905,Q909
K1314131	Q BC557B P SS TO92	Q906,Q907
K131624	D BAX18 SW DO35	D912

Parts list

ORDER NO.	DESCRIPTION	ITEM
K131628	D BAW62 SW DO35	D906
K131687	U 82 CNX DIP6 P	I2
K131705	D ZEN 5V1 5W	Z913
K131789	D ZEN 18V BZX79C DO35	Z905
K1319025	D BY255.BYM56E R SOD18	D901,D902,D903,D904
K1319481	D BYD33J FSR SOD81	D908,D911
K1319482	D BYD33M FSR SOD81	D907
K131952	D BYW96E FSR SOD64	D918
K131955	D BYW95C R SOD64	D917
K131956	D BYV28-200 AR SOD64	D914,D915,D916
K132102	U 33B ZTK DO35 P	Z919
K132216	Q BT151-500R TH TO220	Q908
K132810	U 1039 TEA SIP9 P	I1
K132933	Q BUX86 SS TO126	Q902
K132938	Q BUW13A P SOT93	Q904
K132953	Q BD651F DN P SOT186	Q903
K1330191	Q ACC WSHR TO126	0031
K1330192	Q ACC INSUL MICA TO126	0031
K1330193	Q ACC INSUL BUSH TO126	0031
K1330391	SPR L 8 D 4 D 1.5 C	005
K133064	Q ACC INSUL MICA SOT93	0043
K313454	J TAB MBT H 4.8S0.5 MS	008
K313535	J MT MBT P 12 R2.5 BLA	006
K3135779	J MT MBT P 2 R7.5 LOC	011
K314103	F 3A15 5X20 SLOW	F901
K3141069	F 1A6 5X20 FAST ULCSA	F903
K314501	F HLDR 5X20 CLIPS	009
K314514	F HLDR 5X20 CAP+H	0091
K315331	SLDRLUG SCR 1TAG D3.2 L12	0020
K34217004	UN WIRE BLA AWG24 L04	W1
K3469931	SLV SHR D 9.5 L20 BLA	Q908
K348100	W JUMP 0.6 AUTOM	8100
K3620157	SCR DIN84 M 2.5X 12	003
K362121	SCR DIN7985 M 3 X 6 F N	0100
K362122	SCR DIN7985 M 3 X 8	002
K362124	SCR DIN7985 M 3 X 12	004
K366102	NUT DIN934 M 3	0022,0045
K366110	NUT DIN934 M 2.5	0032
K367502	WSHR DIN6798 A 3.2 F Z	0021,0044,0101
K367528	WSHR DIN6798 A 2.7 F Z	0033
K716533	PCB MN46 PCD16 SMP 76	PC
K761993D	UN WIRE MN46 SMP RC 01	W2
K7730541	CHOKE RA NS 5 UH	L902
K773256	COIL N32.5 C1.6 D0.25	L903
K773309	CH MAINS TV 32	T901
K7741851	T MN46 SMP	T902
K800354	WSHR D 3.25X 7.5 T . M	0042
K801151	SPR L 6.5 D 9.75D 6.9 P	0041
K802069	HTSNK MN46 OCM28 SMP	001
V107008	R TCE H 5K M 0W5 S7 TS	P901
V111489	C EL RA 470M M 35E 105	C923

5.K761969

ORDER NO.	DESCRIPTION	ITEM
C1147009	C CE DI 4N7M400 Y	C927,C931
K101112	R CF H 10E J 0W25	R907
K101124	R CF H100E J 0W25	R916
K101130	R CF H330E J 0W25	R929
K101133	R CF H560E J 0W25	R908
K101136	R CF H 1K J 0W25	R901,R915,R923,R925,R940
K1011369	R CFFH 1K J 0W25	R903
K101139	R CF H 1K8 J 0W25	R941
K101140	R CF H 2K2 J 0W25	R924
K101143	R CF H 3K9 J 0W25	R922
K101144	R CF H 4K7 J 0W25	R939
K101150	R CF H 15K J 0W25	R927
K101152	R CF H 22K J 0W25	R926
K101170	R CF H680K J 0W25	R905
K1011907	R CFFH E1 J 0W4	R937
K101232	R CF H470E J 0W5	R912
K101252	R CF H 22K J 0W5	R930
K101253	R CF H 27K J 0W5	R932
K101260	R CF H100K J 0W5	R931
K1012907	R CFFH E1 J 0W5	R936,R938
K101359	R CF H 82K J 1W	R904
K103048	R MF H 10K J 1W	R933
K103341	R MO H 2K7 J 4W	R911
K103359	R MO H 82K J 4W	R910
K1035298	R WWFV 27E J 2W	R914
K1035528	R WWFH 2K2 J 2W	R906
K104182	R WW V 0E22K 4W	R920
K104662	R HV H 2M2 J 0W5 3500	R935,R943
K105200	R PTC 100E	R902
V107008	R TCE H 5K M 0W5 S7 TS	P901
K111476	C EL RA 47M Z 25E2 85	C916,C919
K111479	C EL RA 470M Z 25E2 85	C922
K1114799	C EL RA 470M M 25E2 105	C914
K1114859	C EL RA 100M M200E3 105	C924,C925
V111489	C EL RA 470M M 35E 105	C923
K1114909	C EL RA1000M M 50E3 105	C921
K111546	C EL RAMI 1M M 50E2 85	C928
K111550	C EL RAMI 4M7M 50E2 85	C929
K111655	C EL RA 400M T385SKT 85	C906
K1117602	C PPMERA 1N J202 HV	C909
K112242	C NP0 MI 100P J 63E2	C930
K112739	C CE MI 1N K 63E2	C913
K112831	C CE DI 3N3S400E3	C907
K112837	C CE DI 10N S400E3	C904,C905
K1137141	C POMERA 15N K100E2 85	C912
K1137161	C POMERA 22N K100E2 85	C918
K113724	C POMERA 100N K 63E2 85	C917
K113890	C PETPFP 2M2K100E6	C910
K114476	C PO RA 6N8K630	C908
K114716	C PO RA 1M M250 X	C903

2. K761992

ORDER NO.	DESCRIPTION	ITEM
K101112	R CF H 10E J 0W25	R7
K101135	R CF H820E J 0W25	R9
K101142	R CF H 3K3 J 0W25	R8
K101152	R CF H 22K J 0W25	R10
K101172	R CF H 1M J 0W25	R6
K102944	R MF H 4K7 J 2W	R4
K1052096	R PTC 220V	PTC1
K111458	C EL RA 470M Z 10E2 85	C4
K112364	C N750MI 150P J 63E2	C3
K112830	C CE DI 2N7S400E3	C6
K114722	C CE DI 2N2M400E5	C5
K1314071	Q BC547B N SS TO92	Q2
K131637	D BA158 SW	D1 ,D3
K131691	U 601G-3 SFH DIP6 P	IC1
K131705	D ZEN 5V1 5W	Z1
K132935	Q BUX87 SS TO126	Q1
K1330391	SPR L 8 D 4 D 1.5 C	R4
K133052	Q ACC HTSNK TO126	Q1
K306718	T PJ49 SMP STAND-BY	T1
K313284	J CIS MBS P 1 L6.2 RL	J1 ,J11 ,J2 ,J3 ,J4
K3135770	J MT MBT P 2 R10 LOC	J8
K314118	F 0A25 5X20 FAST	F1
K314514	F HLDR 5X20 CAP+H	F1
K324360	RLY 12V 2U 285E	REL1
K344041	CD MT FL RED 550 1XP 5	W2
K348019	W ACC TIE BAND L100 W2.5	W2
K761970D	UN SMP MN46 OCM28+DEGASUB	W1
K789032	PCB MN46 DEGAUSS R.C. 7	PC
K801077	SPR RVT L 8 D 6 M3 A	001

3. K7619939

See parts list K761993 except:

- F901 3A15 (K314103) is replaced by 3A2 (K314152)
- R906 (2K2) is replaced by 600E PTC (K105213)
- R914 (27E) is replaced by 27E R WWH (K103721)
- R915 1K RCF is added (K101136)
- T901 (K773309) is replaced by K774309
- R937 E1 CFFH is added (K1011907)
- Unit K761992 is replaced by K7619929

4. K7619929

See parts list K761992 except:

- F1 0A25 (K314118) is replaced by 0A25 (K3141189)
- C1 400M (K111655) is added

6. K761970 SUBUNIT PERIODIC DEGAUSS

ORDER NO.	DESCRIPTION	ITEM
K1011129	R CFFH 10E J 0W25	SR16
K101124	R CF H100E J 0W25	R5
K101148	R CF H 10K J 0W25	R10 ,R11 ,R12 ,R14 ,R8 ,R9
K101160	R CF H100K J 0W25	R4 ,R7
K101170	R CF H680K J 0W25	R6
K101171	R CF H820K J 0W25	R13
K101172	R CF H 1M J 0W25	R15
K1052096	R PTC 220V	PTC1
K1111595	C EL AX 47M T 25E6 85	C4 ,C5
K111476	C EL RA 47M Z 25E2 85	C1 ,C6
K114090	C POMERA 1M M 63E2 85	C3
K1314295	Q BC549B N SS TO92	Q1 ,Q2 ,Q3
K131621	D 1N4148 SW DO35	D1 ,D10 ,D11 ,D12 ,D13 ,D2 , D3 ,D4 ,D5 ,D6 ,D7 ,D8 , D9
K131646	D 1N4007 R DO41	D14
K1319481	D BYD33J FSR SOD81	D15
K134033	U 78L12 TO92 P	IC3
K137610	U 4060B DIP16 P	I1
K313276	J MOD1 MBT P 10 R2.5 SN	J8
K313284	J CIS MBS P 1 L6.2 RL	J1 ,J2 ,J3 ,J4
K313572	J MT MBT P 3 R2.5 BLA	J7
K3135770	J MT MBT P 2 R10 LOC	J9
K3243231	RLY 24V 2U 880E	REL1
K348100	W JUMP 0.6 AUTOM	8100
K761970D	UN SMP MN46 OCM28+DEGASUB	
K789017	PCB MN46 MAN/AUTO.DEG. 76	PC
K801077	SPR RVT L 8 D 6 M3 A	

7. K7619699

See parts list K761969 except:
- F901 3A15 (K314103) is replaced by 3A2 (K314152)
- T901 (K306435) is replaced by K774309
- Unit K761970 is replaced by K7619709

8. K7619709

See parts list K761970 except:
- C2 400M (K111655) is added

2.2 POWER SUPPLIES

Parts list

ORDER NO.	DESCRIPTION	ITEM
K1159161	C PP RA 1N J100E2	C915
K131411	Q BC549C N SS TO92	Q901,Q905,Q909
K1314131	Q BC557B P SS TO92	Q906,Q907
K1314361	Q BD139 P TO126	Q903
K131624	D BAX18 SW DO35	D912
K131628	D BAW62 SW DO35	D906
K131687	U 82 CNX DIP6 P	I2
K131705	D ZEN 5V1 5W	Z913
K131789	D ZEN 18V BZX79C DO35	Z905
K1319025	D BY255.BYM56E R SOD18	D901,D902,D903,D904
K1319481	D BYD33J FSR SOD81	D908,D911
K1319482	D BYD33M FSR SOD81	D907
K131952	D BYW96E FSR SOD64	D918
K131955	D BYW95C R SOD64	D917
K131956	D BYV28-200 AR SOD64	D914,D915,D916
K132102	U 33B ZTK DO35 P	Z919
K132216	Q BT151-500R TH TO220	Q908
K132810	U 1039 TEA SIP9 P	I1
K132933	Q BUX86 SS TO126	Q902
K132938	Q BUW13A P SOT93	Q904
K1330191	Q ACC WSHR TO126	0031
K1330192	Q ACC INSUL MICA TO126	0031
K1330193	Q ACC INSUL BUSH TO126	0031
K1330391	SPR L 8 D 4 D 1.5 C	005
K133064	Q ACC INSUL MICA SOT93	0043
K306435	CH MAINS 30 MH 20D3	T901
K313454	J TAB MBT H 4.8S0.5 MS	008
K313535	J MT MBT P 12 R2.5 BLA	006
K3135779	J MT MBT P 2 R7.5 LOC	010
K314103	F 3A15 5X20 SLOW	F901
K3141069	F 1A6 5X20 FAST ULCSA	F903
K314501	F HLDR 5X20 CLIPS	009
K314514	F HLDR 5X20 CAP+H	0091
K315331	SLDRLUG SCR 1TAG D3.2 L12	0020
K34217004	UN WIRE BLA AWG24 L04	W1
K3469931	SLV SHR D 9.5 L20 BLA	Q908
K348100	W JUMP 0.6 AUTOM	8100
K3620157	SCR DIN84 M 2.5X 12	003
K362121	SCR DIN7985 M 3 X 6 F N	0201
K362122	SCR DIN7985 M 3 X 8	002
K362124	SCR DIN7985 M 3 X 12	004
K366102	NUT DIN934 M 3	0022,0045
K366110	NUT DIN934 M 2.5	0032
K367502	WSHR DIN6798 A 3.2 F Z	0021,0044,0202
K367528	WSHR DIN6798 A 2.7 F Z	0033
K716533	PCB MN46 PCD16 SMP 76	PC
K761970	UN SMP MN46 OCM28 DEG SUB	020
K7730541	CHOKE RA NS 5 UH	L902
K773256	COIL N32.5 C1.6 D0.25	L903
K7741851	T MN46 SMP	T902
K800354	WSHR D 3.25X 7.5 T . M	0042
K801151	SPR L 6.5 D 9.75D 6.9 P	0041
K802069	HTSNK MN46 OCM28 SMP	001

ORDER NO.	DESCRIPTION	ITEM
V131411	Q BC549C N SS TO92	Q901,Q905,Q909
V1314131	Q BC557B P SS TO92	Q906,Q907
V1314361	Q BD139 N P TO126	Q903
V131624	D BAX18 SW DO35	D912
V131628	D BAW62 SW DO35	D906
V131692	U 82A CNX DIP6 P	I2
V131717	D ZEN 5V1 5W C 17-02	Z913
K131789	D ZEN 18V BZX79C DO35	Z905
K1319025	D BYM56E R SOD64	D901,D902,D903,D904
V1319033	D BYD33J FSR SOD81	D908,D911
V1319035	D BYD33M FSR SOD81	D907
V131914	D BYW96E AFSR SOD64	D918
K131955	D BYW95C AFSR SOD64	D917
V1319584	D BYV28-200 AR SOD64	D914,D915,D916
V1321025	U 33V KA TO92 P	Z919
K132216	REPLACED BY C132213	Q908
V132745	U 1039 TEA SIP9 P	I1
K132933	Q BUX86 N P TO126	Q902
K132938	Q BUW13A P SOT93	Q904
V1330011	Q ACC ISO SIL 13X 9	0031
V1330016	Q ACC ISO SIL 26X 19	0043
K1330191	Q ACC WSHR MTL TO126	0031
K1330193	Q ACC ISO BUSH TO126	0031
K1330391	SPR L 8 D 4 D 1.5 K	005
K306435	CH MNS 30 MH 2X 1A4	T901
K3132651	R ACC HLDR H18.5 WW V	
K313284	J CIS MBS P 1 L6.2 RL	J
K313454	J TAB1 MBT H 4.8S0.5	008
K313535	J MT I MBT P12 R1SN BLK	006
K3135770	J MT FL MBT P 2 R4SN BLK	007
K3135779	J MT FL MBT P 2 R3SN BLK	010
K314103	F T 3A15 H 5X20 RU/VDE	F901
K314106	F F 1A6 L 5X20 RU/VDE	F903
K314501	F ACC HLDR 5X20 PC	009
K314514	F ACC HLDR 5X20 PC+CAP	0091
V315331	SLDRLUG SCR 1TAG D3.2 L12	0020
K34217004	UN WIRE BLA AWG24 L04	W1
K348100	W JUMP 0.6 AUT	8100
C348202	SLV OIL D 1.5 L 15 RED	R910
K3620157	SCR D84 M 2.5X 12 I	003
K362121	SCR D7985 M 3 X 6 S Z	0202
K362122	SCR D7985 M 3 X 8 S Z	002
K362124	SCR D7985 M 3 X 12 S Z	004
V366102	NUT D934 M 3 S Z	0022,0045
V366110	NUT D934 M 2.5 S Z	0032
K366988	NUT I SOUTH M 3X 0.5	0023
K367502	WSHR D6798 A 3.2 S Z	0021,0044,0203
K367528	WSHR D6798 A 2.7 S Z	0033
V602978	HTSNK MN46 SMP VII 00	001
K716533	PCB MN46 SMPS 10	PC
K7730541	CHOKE RA NS 5 UH	L902
K773256	COIL N32.5 C1.6 D0.25	L903
K7741851	T MN46 SMP 03	T902
K800354	WSHR D 3.25X 7.5 T . M	0042
K801077	SPR RVT L 8 D 6 M3 A	0201
K801282	SPR L 5 D 9.75D 6.9 P01	0041

9. K7615331 SMPS 220 OCM

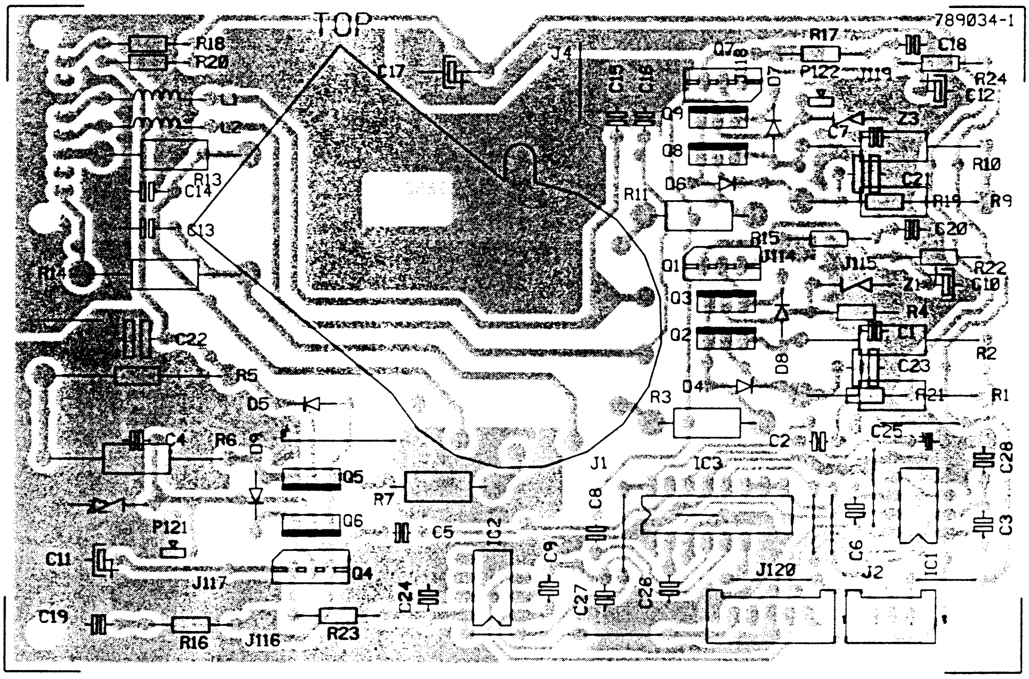
ORDER NO.	DESCRIPTION	ITEM
K101112	R CF H 10E J 0W25	R907
K101124	R CF H100E J 0W25	R916
K101130	R CF H330E J 0W25	R929
K101133	R CF H560E J 0W25	R908
K101136	R CF H 1K J 0W25	R901,R923,R925,R940
V1011369	R CFFH 1K J 0W25	R903
K101139	R CF H 1K8 J 0W25	R941
K101140	R CF H 2K2 J 0W25	R924
K101143	R CF H 3K9 J 0W25	R922
K101144	R CF H 4K7 J 0W25	R939
K101150	R CF H 15K J 0W25	R927
K101152	R CF H 22K J 0W25	R926
K101170	R CF H680K J 0W25	R905
K1011907	R CFFH E1 J 0W4	R937
K101232	R CF H470E J 0W5	R912
K101252	R CF H 22K J 0W5	R930
K101253	R CF H 27K J 0W5	R932
K101260	R CF H100K J 0W5	R931
K1012907	R CFFH E1 J 0W5	R936,R938
K101359	R CF H 82K J 1W	R904
K103048	R MF H 10K J 1W	R933
V103341	R MO H 2K7 J 4W	R911
K103359	R MO H 82K J 4W	R910
K1035298	R WWFV 27E J 2W	R914
K1035528	R WWFH 2K2 J 2W	R906
K104182	R WW V 0E22K 4W	R920
V104648	R HV H390K J 0W5 3500	R
V104662	R HV H 2M2 J 0W5 3500	R935,R943
V105200	R PTC 100E	R902
K1052096	R PTC 220V	PTC1
V107008	R TCE H 5K M 0W5 S7 TS	P901
K111476	REPLACED BY V1115119	C916,C919
K111479	C EL RA 470M M 25E2 85	C922
V1114799	C EL RA 470M M 25E2 105	C914
V1114859	C EL RA 100M M200E3 105	C924,C925
V111489	C EL RA 470M M 35E2 105	C923
K1114909	REPLACED BY C1113719	C921
K111546	REPLACED BY V1115469	C928
K111550	C EL RA 4M7M 50E2 85	C929
C111655	C EL RA 400M T385SKT 85	C906
C111760	C PPMERA 1N J202E9 HV	C909
V112242	C NP0 MI 100P G 63E2	C930
V112739	C CE MI 1N K 63E2	C913
V112831	C CE DI 3N3S400E3	C907
C112837	C CE DI 10N S400E3	C904,C905
K1137141	C POMERA 15N K100E2 85	C912
K1137161	C POMERA 22N K100E2 85	C918
C113890	C PETPFP 2M2K100E6	C910
V114088	C POMERA 100N K 63E2 85	C917
V114476	C PO RA 6N8K630 85	C908
C1147009	C CE DI 4N7M400E5 Y	C927,C931
C1147169	C PO RA 1M M250 X	C903
K1159161	REPLACED BY V115161	C915

2.3 CRT BOARD

Important: the diagram in this chapter corresponds to Printed Circuit Board **K789034**. This PCB is used in the following unit:

K761987

Please refer to the detailed parts list of this unit in the back of this chapter.


TOP
789034-1
R18
R20
L1
L2
R13
C14
C13
R14
C22
R5
D5
C4
R6
D9
Q5
Q6
R7
P121
C11
J117
Q4
C5
C19
R16
J116
R23
C24
IC2
C9
C8
C27
C26
C17
J4
C15
C16
R11
J1
IC3
J120
Q7
D10
Q9
Q8
D6
D7
R17
P122
J119
C18
R24
C12
Z3
C7
R10
C21
R19
R9
R15
C20
Q1
J114
J115
Z1
R22
C10
Q3
R4
Q2
D8
C1
R2
C23
D4
R21
R1
R3
C2
C25
C28
C6
C3
J2
IC1

This PCB is used in unit no. K76[illegible]987

Name CRT BOARD	**PCB no.** K789034

Date 25/06/92	**Drawn** RIP	**Checked** RIP

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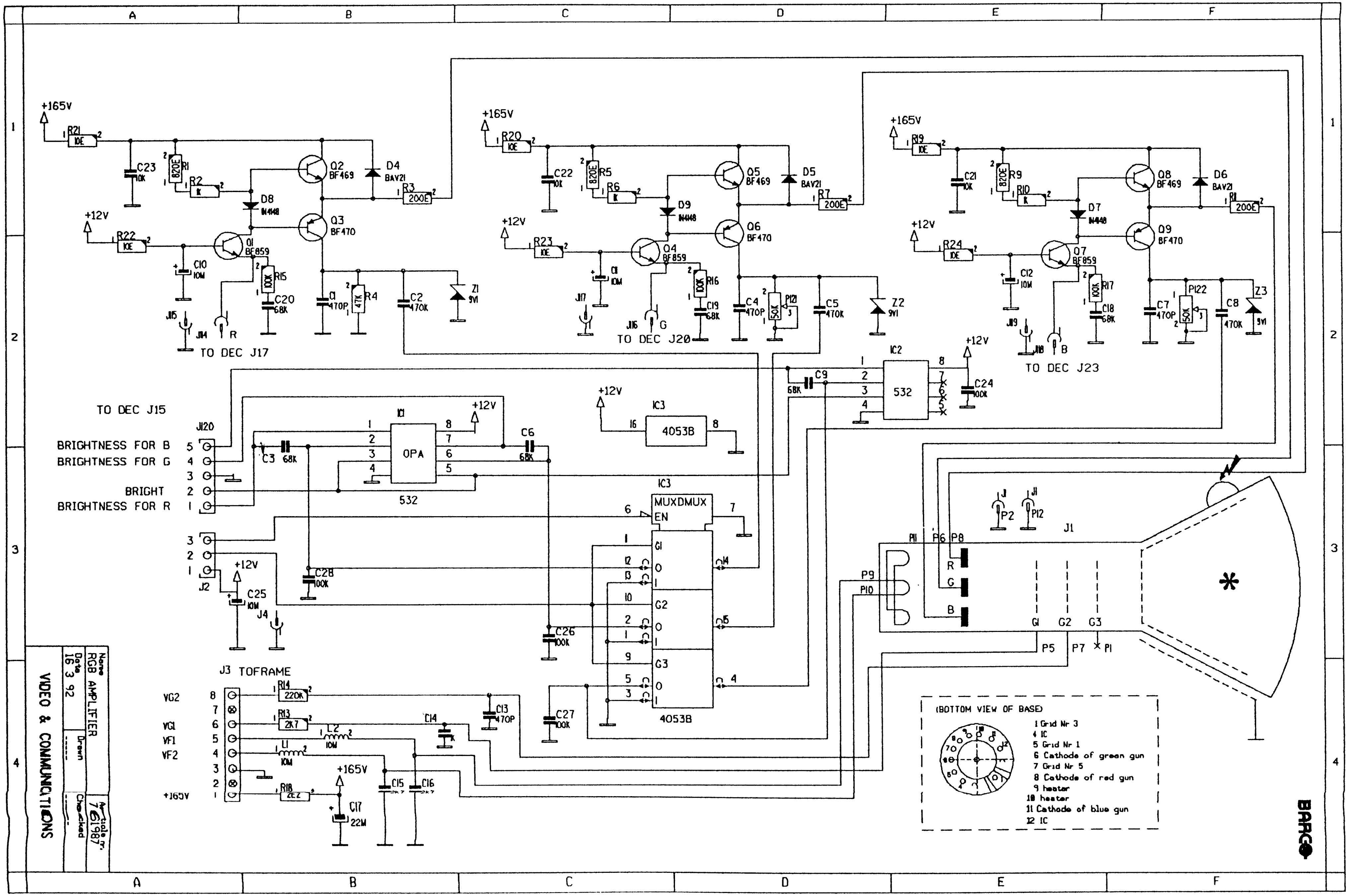
BARCO
A
B
C
D
E
F
1
2
3
4
+165V
+12V
R21 10E
R22 10E
C23 10K
R1 820E
R2 1K
D8 1N4148
Q1 BF859
Q2 BF469
Q3 BF470
D4 BAV21
R3 200E
C10 10M
R15 100K
C20 68K
C1 470P
R4 47K
C2 470K
Z1 9V1
J15
J14
R
TO DEC J17
R20 10E
R23 10E
C22 10K
R5 820E
R6 1K
D9 1N4148
Q4 BF859
Q5 BF469
Q6 BF470
D5 BAV21
R7 200E
C11 10M
R16 100K
C19 68K
C4 470P
P121 50K
C5 470K
Z2 9V1
J17
J16
G
TO DEC J20
R19 10E
R24 10E
C21 10K
R9 820E
R10 1K
D7 1N4148
Q7 BF859
Q8 BF469
Q9 BF470
D6 BAV21
R11 200E
C12 10M
R17 100K
C18 68K
C7 470P
P122 50K
C8 470K
Z3 9V1
J19
J18
B
TO DEC J23
IC2
532
C9 68K
C24 100K
TO DEC J15
J120
BRIGHTNESS FOR B
BRIGHTNESS FOR G
BRIGHT
BRIGHTNESS FOR R
IC1
OPA
532
C3 68K
C6 68K
IC3
4053B
IC3
MUXDMUX
EN
G1
G2
G3
4053B
C28 100K
C26 100K
C27 100K
J2
C25 10M
J4
J3 TOFRAME
VG2
VG1
VF1
VF2
+165V
R14 220K
R13 2K7
L2 10M
L1 10M
R18 2E2
C13 470P
C14 1K
C15 2K7
C16 2K7
C17 22M
J1
P2
P12
P11
P6
P8
P9
P10
R
G
B
G1
G2
G3
P5
P7
P1
*
(BOTTOM VIEW OF BASE)
1 Grid Nr 3
4 IC
5 Grid Nr 1
6 Cathode of green gun
7 Grid Nr 5
8 Cathode of red gun
9 heater
10 heater
11 Cathode of blue gun
12 IC

Name
RGB AMPLIFIER

Article nr.
761987

Date
16 3 92

Drawn

Checked

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SCHEMATIC NAME: rgbamp.sch SHEET NUMBER: 1 DATE: Aug 26, 1992

P121, P122

Refer to the adjustment procedure of the decoder board, section **12.Colour temperature adjustment.**

K761987

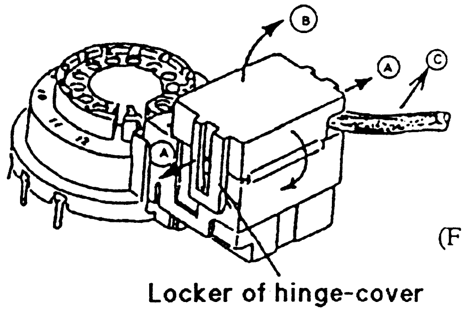
ORDER NO.	DESCRIPTION	ITEM
K101104	R CF H 2E2 J 0W25	R18
K101112	R CF H 10E J 0W25	R19,R20,R21
K101156	R CF H 47K J 0W25	R4
K102028	R CC H220E K 0W5	R11,R13 R3,R7
K102064	R CC H220K K 0W5	R14
V102337	R MF H 1K2 J 2W5	R1,R10,R2,R5,R6,R9
K1068332	R TCE V100K M 0W5 R10SC	P121,P122
K1114189	C EL RA 22M M350E3 105	C17
V111494	C EL RA 10M M 63E2 85	C25
K111531	C EL RAMI10M M 35E2 85	C10,C11,C12
K112098	C CE DI 470P M400E5	C13
K112234	C NP0 MI 22P G 63E2	C1,C4,C7
K112681	C N750MI 15P G500E2	C14
K112830	C CE DI 2N7S400E3	C15,C16
K112837	C CE DI 10N S400E3	C21,C22,C23
K1137121	C POMERA 10N K100E2 85	C2,C5,C8
K1159121	C PP RA 680P J100E2	C3,C6,C9
K131621	D 1N4148 SW DO35	D7,D8 ,D9
K131627	D BAV21 SW DO35	D4,D5 ,D6
K131744	D ZEN 5V6 0W5 C DO35	Z1,Z2 ,Z3
K132514	Q BF469 SS TO126	Q2,Q5 ,Q8
K132515	Q BF470 .870 P SS TO126	Q3,Q6 ,Q9
K132928	Q BF859 SS TO202	Q1,Q4 ,Q7
K133069	Q ACC INSUL SILI TO220	0011
K134142	U 3240E CA DIP8 P	U1,U2
K137391	U 4053B DIL16 P	U3
K3061222	CH AX NS 1.5 UH	L6,R22,R23,R24
K3061322	CH AX NS 10 UH	L1,L2
K311043	J CRT FBT CVT3245 SOC	J1
K313572	J MT MBT P 3 R2.5 BLA	J2
K313580	J MT MBT P 5 R2.5 BLA	J5
K3153102	J TAB MBT H 2.8S0.5	J4
K344051	CD MT FL BLA 350 1XP 8	W1
K348006	W ACC TIE BAND L140 W	W1
K348204	SLV OIL D 1.5 L20 RED	0020
K362122	SCR DIN7985 M 3 X 8	0012
K366102	NUT DIN934 M 3	0013
K367434	RVT POPS AD32ABS D2.4	0016
K367502	WSHR DIN6798 A 3.2 F Z	0014
K7219525	KNOB TURN GREEN L17.5	P121
K7219526	KNOB TURN MN BLUE SHORT	P122
K761987D	UN WIRE MN46 CRT RC 00	W2
K789034	PCB MN46 RGB+CRT SOC 02	PC
K804139	HTSNK MN46 RGB R.C.	0011
K804140	FIX MN46 RGB HTSNK R.C.	0015

How to remove a Focus lead?

WARNING

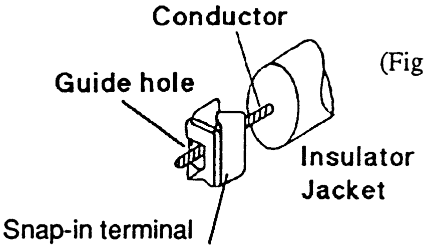
Proceed this replacement
very carefully to prevent damage
of the hinge-cover locker.

- Pull the locker of the hinge-cover very carefully on both sides, see detail A .
- Open the hinge-cover, see detail B.
- Remove the lead and conductor, see detail C.


B
A
C
A
Locker of hinge-cover

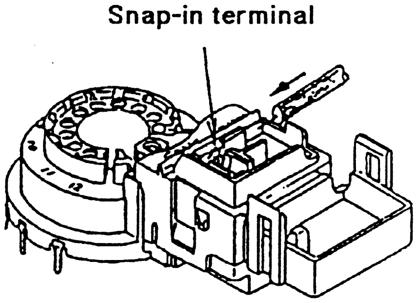
(Figure 1)

How to insert a Focus lead?


Conductor
Guide hole
Insulator
Jacket
Snap-in terminal

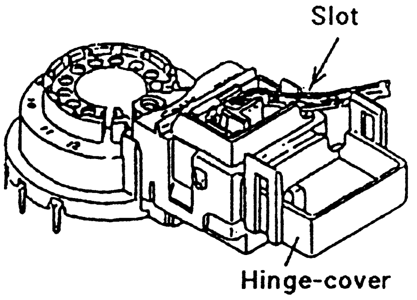
(Figure 2)

- Insert the lead to the snap-in terminal, see figure 2 and 3.


Snap-in terminal

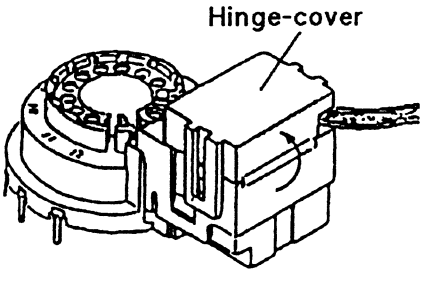
(Figure 3)

- Place the lead into the slot, see figure 4.


Slot
Hinge-cover

(Figure 4)

- Tilt the hinge-cover and lock, see figure 5.


Hinge-cover

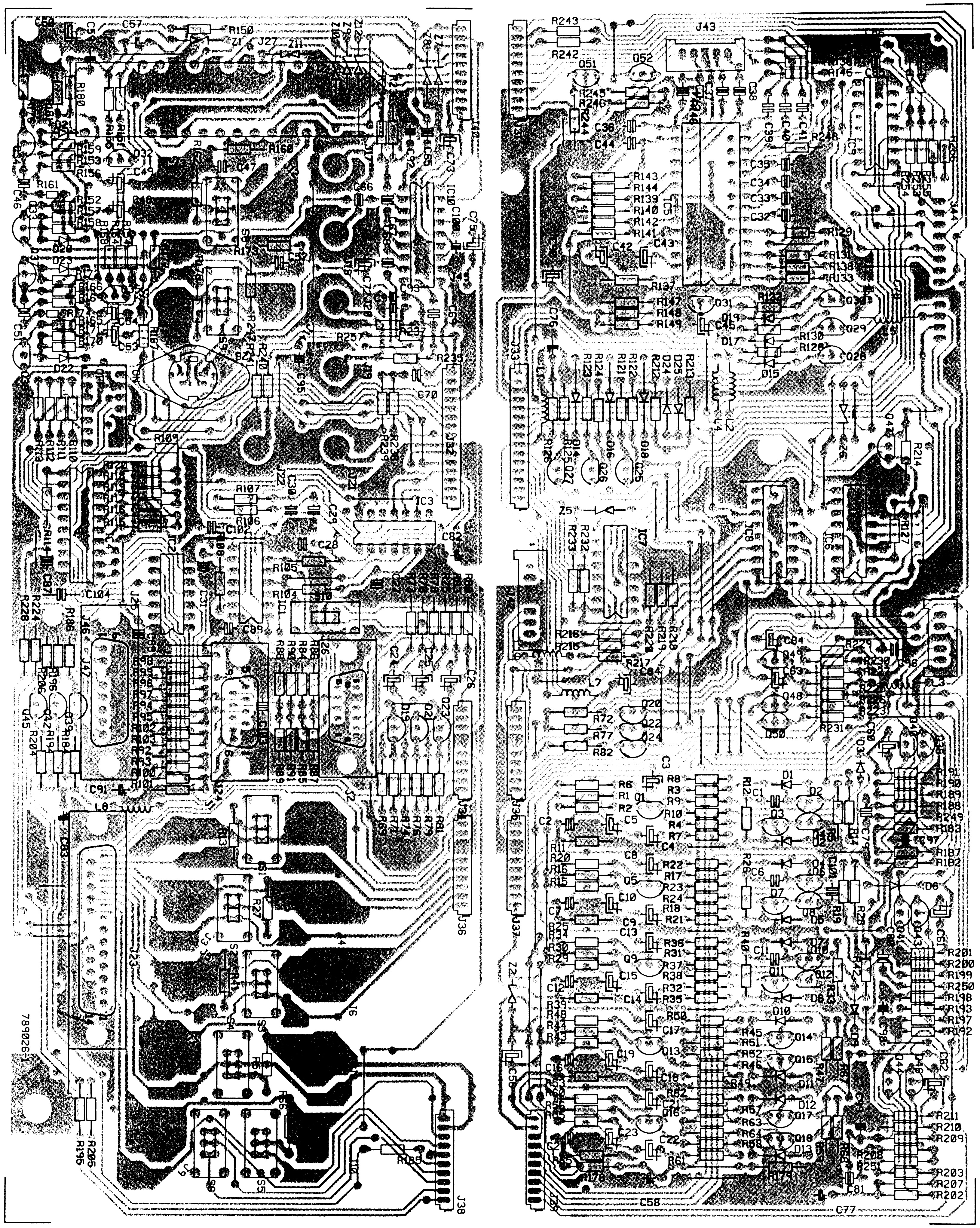
(Figure 5)

Important:

Printed Circuit Board **K789026** is used in unit no. **K761985**
Printed Circuit Board **K789064** is used in unit nos. **K761921** & **K761922**

Please refer to the parts lists at the back of this chapter.

BARCO


J43
J33
J36
J37
J38
J47
J23
IC3
IC7
IC8
IC6
IC10
789026-1

This PCB is used in unit no. K76985

Name INPUT/OUTPUT BOARD	PCB no. K789026

Date 25/06/92	Drawn RIP	Checked RIP

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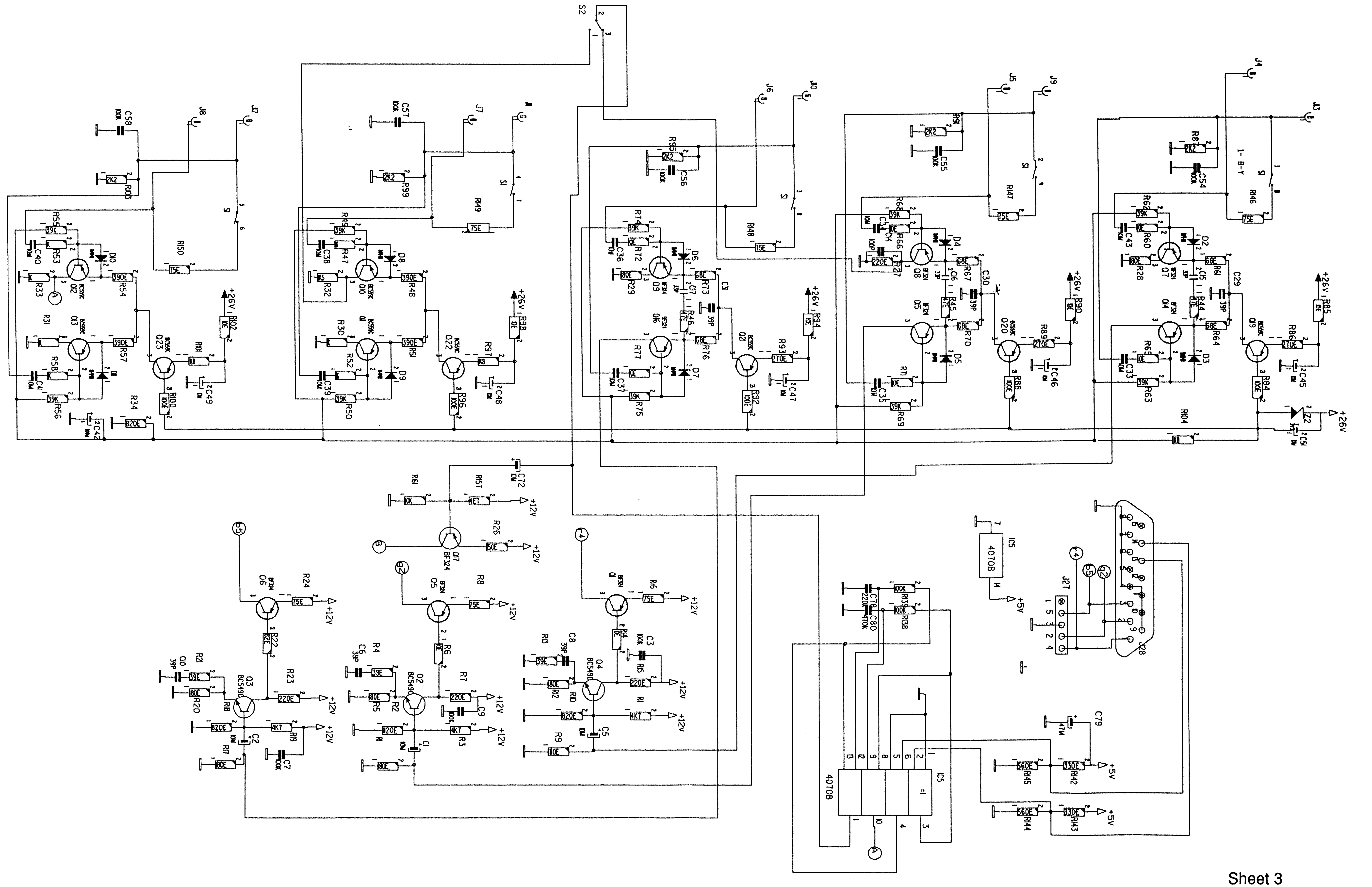
BARCO



S2
S1
J1
J2
J3
J4
J5
J6
J7
J8
J9
J10
1-B-Y
R46
R47
R48
R49
R50
75E
C54
C55
C56
C57
C58
100K
2K2
R8
R9
R35
R99
R105
Q2
Q3
Q7
Q8
Q9
Q10
Q11
Q12
Q13
Q14
Q15
Q16
Q19
Q20
Q21
Q22
Q23
BC559C
BF324
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
1N4148
R28
R29
R30
R31
R32
R33
R44
R45
R51
R52
R53
R54
R55
R56
R57
R58
R60
R61
R62
R63
R64
R65
R66
R67
R68
R69
R70
R71
R72
R73
R74
R75
R76
R77
39K
10E
180E
390E
68E
270E
C6
C14
C16
C17
C27
C29
C30
C31
C33
C35
C36
C37
C38
C39
C40
C41
C42
C43
C45
C46
C47
C48
C49
C59
10M
33P
39P
100P
R84
R85
R86
R88
R89
R90
R92
R93
R94
R96
R97
R98
R100
R101
R102
R34
R104
820E
100E
+26V
Z2
C72
R57
R61
R26
Q7
BF324
4E7
10K
50E
+12V
Q1
Q4
Q5
Q6
R24
R8
R16
75E
R6
R14
R22
10E
R23
R7
R15
R11
R3
R19
220E
4K7
BC549C
Q3
Q2
Q4
R4
R13
R21
C6
C8
C10
39P
39E
R5
R2
R12
R10
R20
R18
180E
820E
R1
R9
R17
C1
C2
C5
C7
C9
C3
10M
100K
IC5
4070B
+5V
C78
C80
220P
470K
R139
R138
100K
C79
47M
560E
330E
R142
R143
R144
R145
J27
J28

Sheet 3

Name IN/OUT VGA		Article nr. 789064
Date 22 09 92	Drawn J N	Checked RDF

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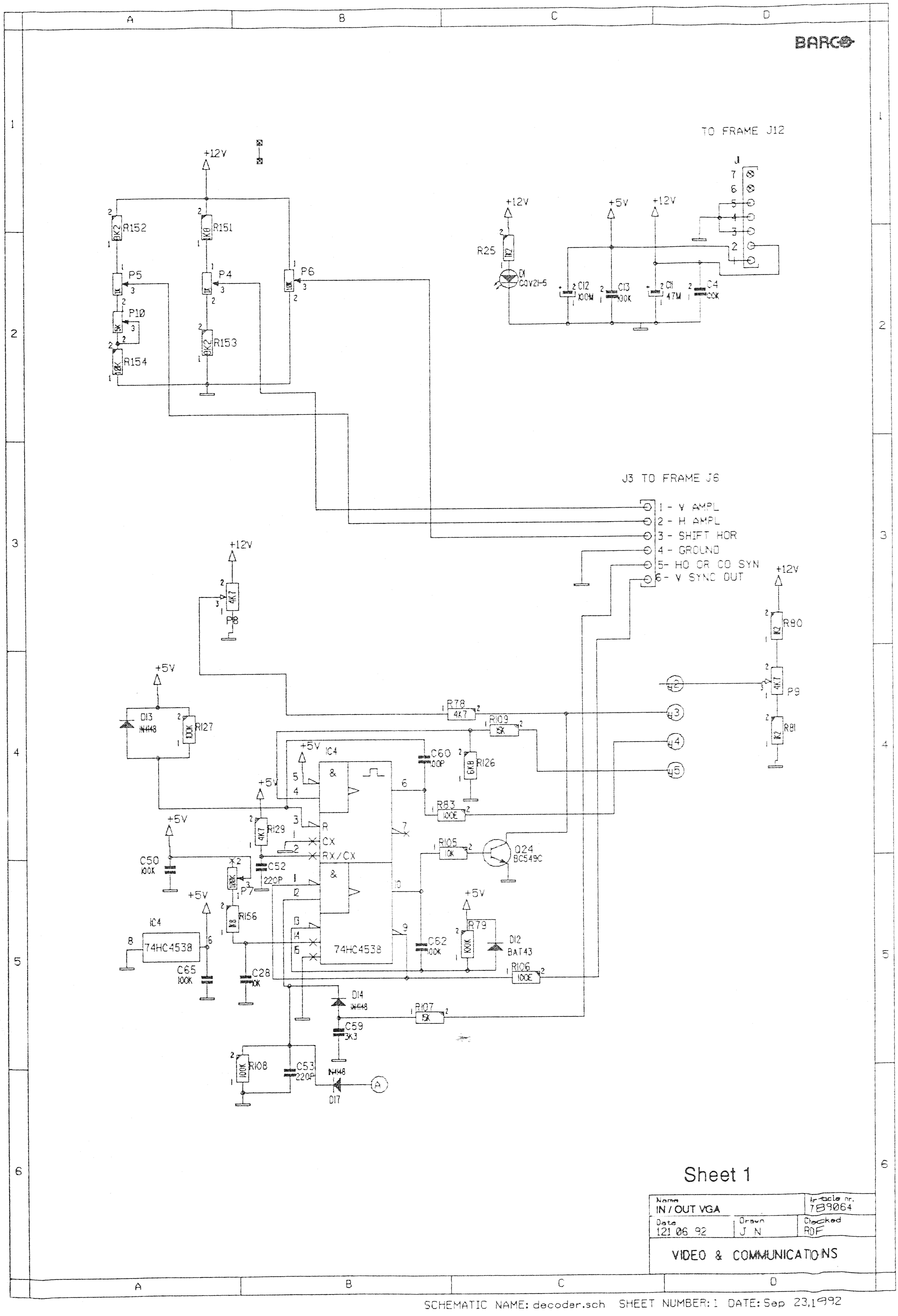
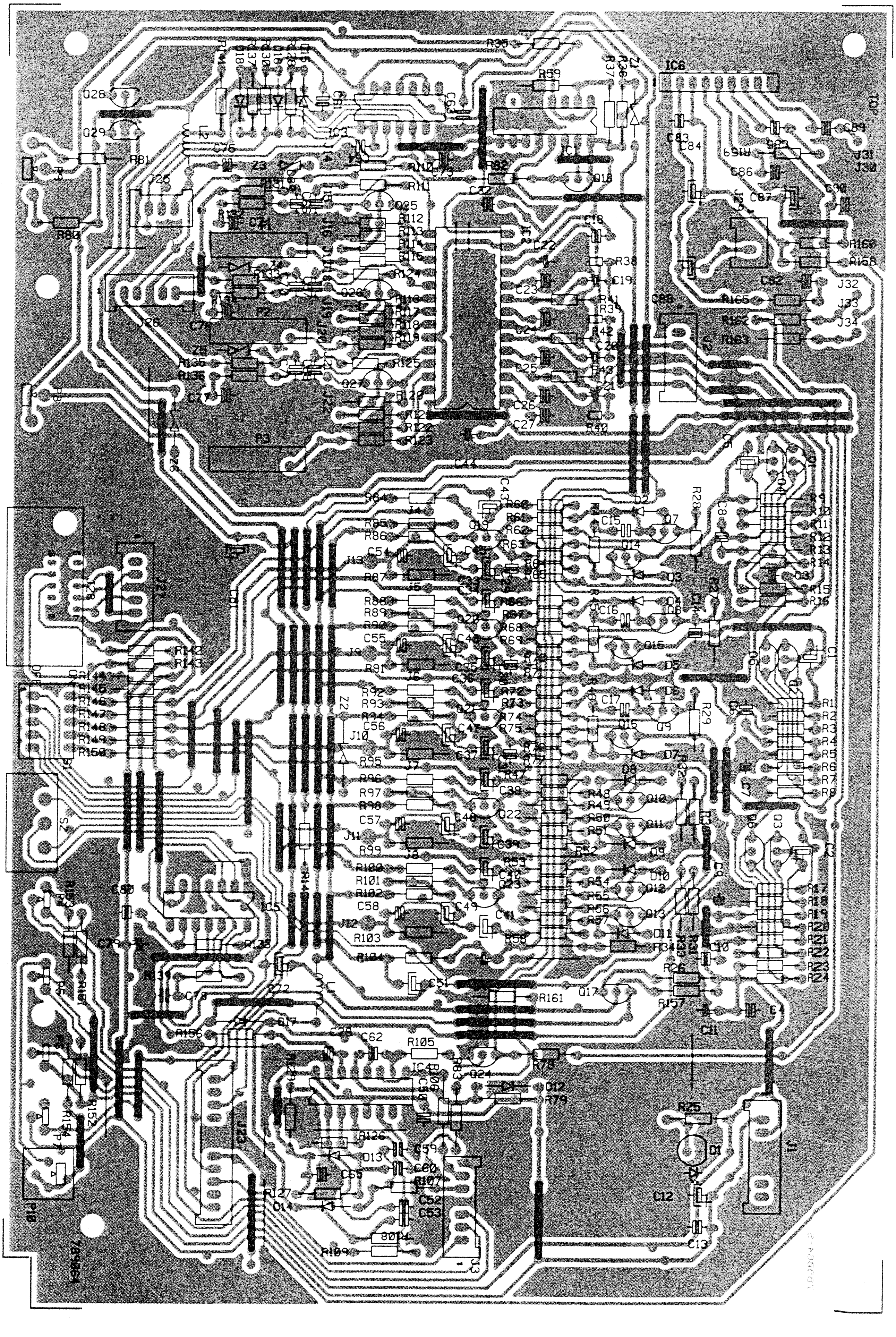

BARCO
TO FRAME J12
J
7
6
5
4
3
2
+12V
R152
8K2
R151
1K0
P5
1K
P4
1K
P6
10K
P10
5K
R153
8K2
R154
10K
R25
1K2
D1
CQY21-5
+5V
C12
100M
C13
100K
C11
47M
C4
100K
J3 TO FRAME J6
1 - V AMPL
2 - H AMPL
3 - SHIFT HOR
4 - GROUND
5 - HO OR CO SYN
6 - V SYNC OUT
P8
4K7
R80
1K2
P9
4K7
R81
1K2
R78
4K7
R109
15K
R126
6K8
C60
100P
IC4
R
CX
RX/CX
&
74HC4538
R83
100E
R105
10K
Q24
BC549C
D13
1N4148
R127
100K
R129
4K7
C50
100K
C52
220P
P7
100K
R156
1K8
C65
100K
C28
10K
C62
100K
R79
100K
D12
BAT43
R106
100E
D14
1N4148
C59
3K3
R107
15K
R108
100K
C53
220P
D17
1N4148
A
B
C
D
1
2
3
4
5
6

Sheet 1

Name IN / OUT VGA		Article nr. 789064
Date 121 06 92	Drawn J N	Checked RDF

VIDEO & COMMUNICATIONS

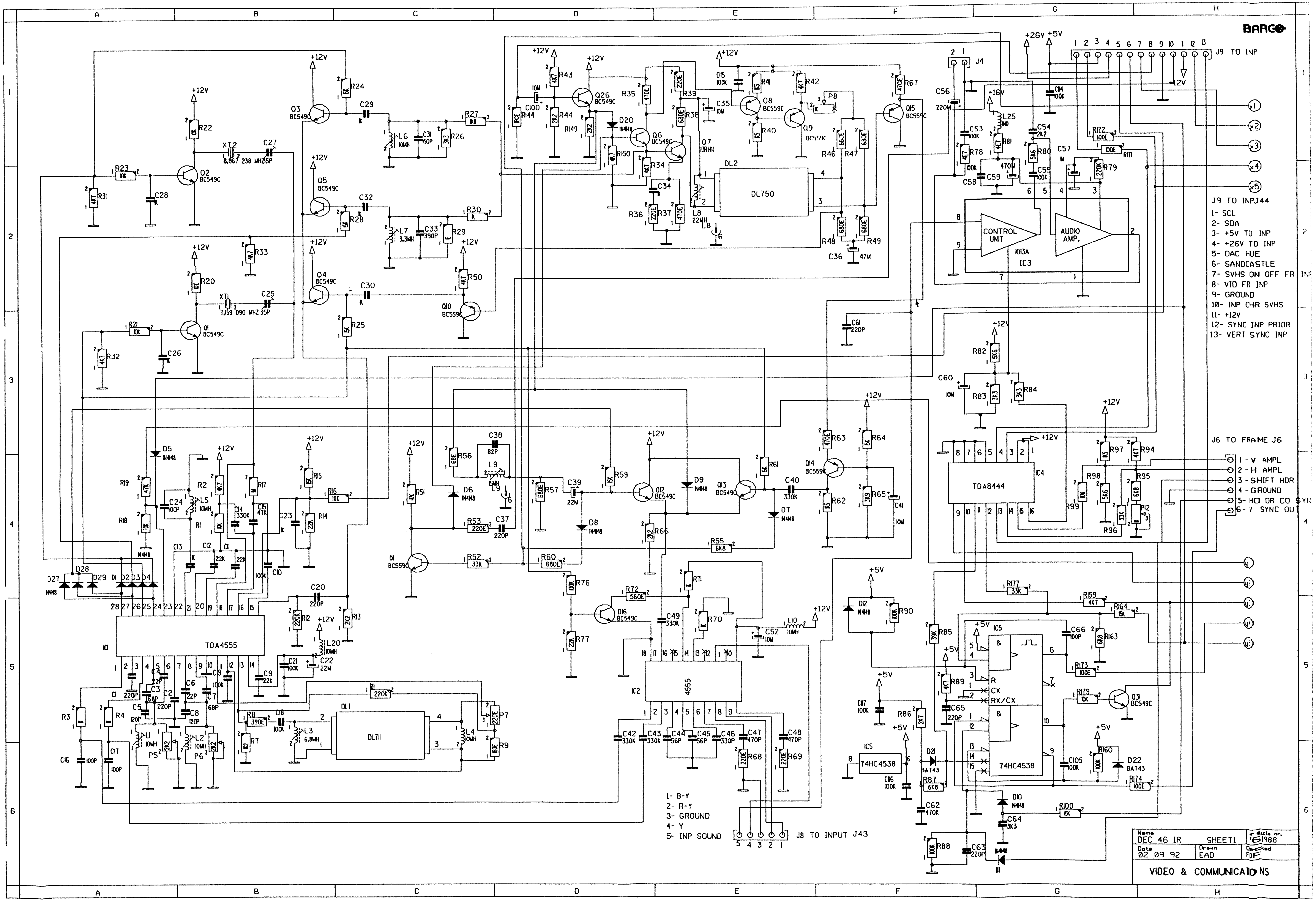

TOP
IC6
IC1
IC3
IC4
IC5
J1
J2
J3
J23
J25
J26
J27
J30
J31
J32
J33
J34
P2
P3
P6
P7
P10
Q1
Q7
Q8
Q9
Q10
Q11
Q12
Q13
Q14
Q15
Q16
Q17
Q18
Q19
Q22
Q23
Q24
Q25
Q26
Q27
Q28
Q29
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D12
D13
D14
D17
R1
R2
R3
R4
R5
R6
R7
R8
R9
R10
R11
R12
R13
R14
R15
R16
R17
R18
R19
R20
R21
R22
R23
R24
R25
R26
R27
R28
R29
R35
R38
R40
R41
R42
R43
R59
R78
R79
R80
R81
R82
R105
R109
R110
R111
R112
R113
R114
R115
R116
R117
R118
R119
R122
R123
R124
R125
R126
R127
R132
R133
R135
R136
R142
R143
R144
R145
R146
R147
R148
R149
R150
R156
R157
R158
R160
R161
R162
R163
R165
C1
C3
C4
C10
C11
C12
C13
C15
C16
C17
C18
C19
C22
C23
C24
C25
C26
C27
C44
C51
C52
C53
C54
C55
C56
C57
C58
C59
C60
C62
C65
C75
C76
C77
C78
C79
C80
C82
C83
C84
C85
C86
C87
C89
C90
Z3
Z4
Z5
789064

This PCB is used in unit no. K761921

Name	PCB no.
INPUT BOARD	K789064

Date	Drawn	Checked
25/06/92	RIP	RIP

Video & Communications


BARCO
J9 TO INP
+26V
+5V
+12V
+16V
J4
J9 TO INPJ44
1- SCL
2- SDA
3- +5V TO INP
4- +26V TO INP
5- DAC HUE
6- SANDCASTLE
7- SVHS ON OFF FR INP
8- VID FR INP
9- GROUND
10- INP CHR SVHS
11- +12V
12- SYNC INP PRIOR
13- VERT SYNC INP
J6 TO FRAME J6
1- V AMPL
2- H AMPL
3- SHIFT HOR
4- GROUND
5- HO OR CO SYN
6- V SYNC OUT
1- B-Y
2- R-Y
3- GROUND
4- Y
5- INP SOUND
J8 TO INPUT J43
XT2 8,867 238 MHZ
XT1 7,159 090 MHZ
TDA4555
4565
DL750
DL711
CONTROL UNIT
AUDIO AMP.
1013A
IC3
TDA8444
IC4
74HC4538
IC5
IC2
Q1 BC549C
Q2 BC549C
Q3 BC549C
Q4 BC549C
Q5 BC549C
Q6 BC549C
Q7 BC549C
Q8 BC559C
Q9 BC559C
Q10 BC559C
Q11 BC559C
Q12 BC549C
Q13 BC549C
Q14 BC559C
Q15 BC559C
Q16 BC549C
Q26 BC549C
Q31 BC549C
L6 10MH
L7 3,3MH
L8 22MH
L5 10MH
L1 10MH
L2 10MH
L3 6,8MH
L4 10MH
L20 10MH
L10 10MH
L25 1MH
D21 BAT43
D22 BAT43
A B C D E F G H
1 2 3 4 5 6

Name
DEC 46 IR SHEET1

Nr. Scale nr.
761988

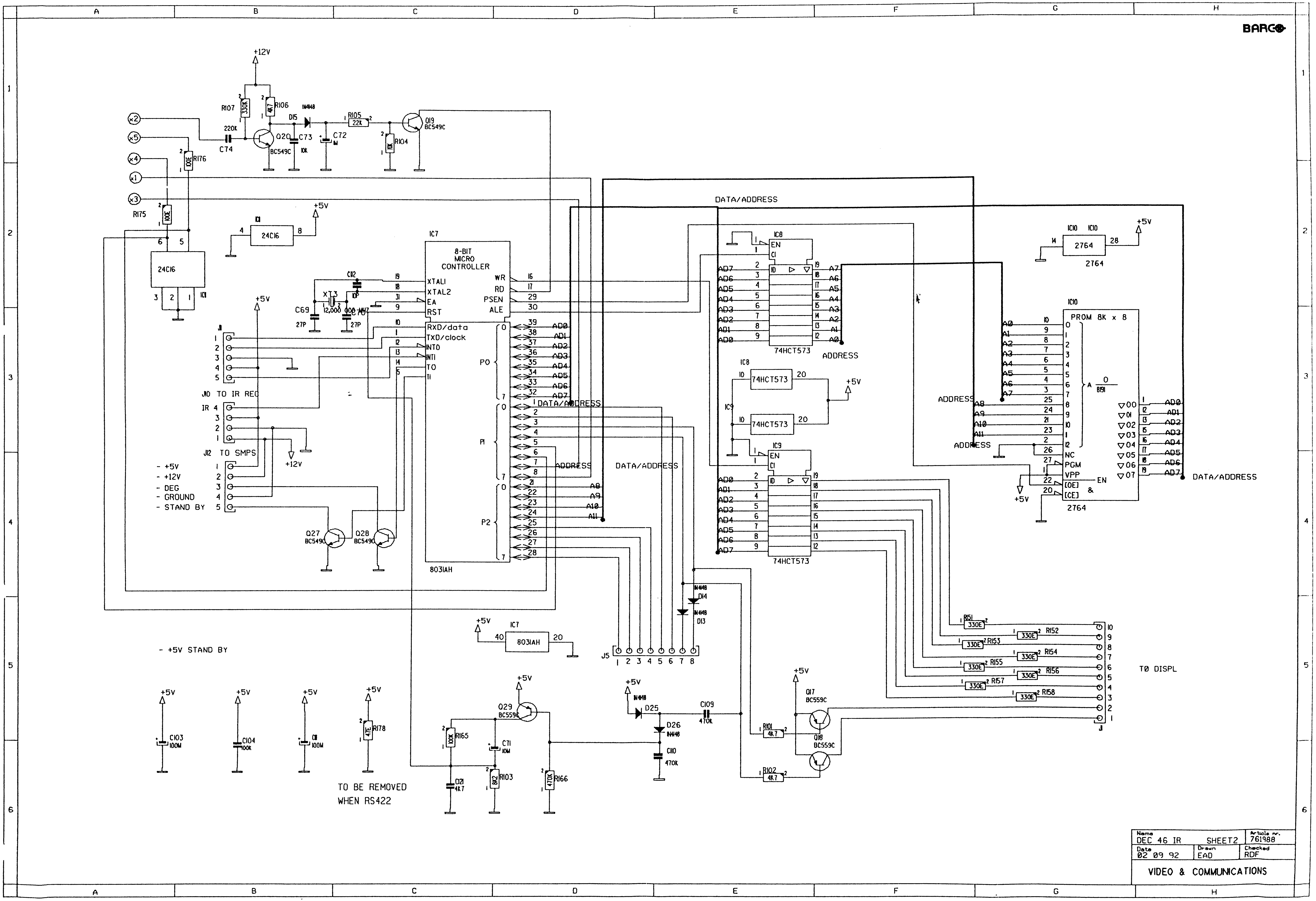
Date
02 09 92

Drawn
EAD

Checked
RDF

VIDEO & COMMUNICATIONS

SCHEMATIC NAME: decoder.sch SHEET NUMBER: 1 DATE: Sep 21 1992

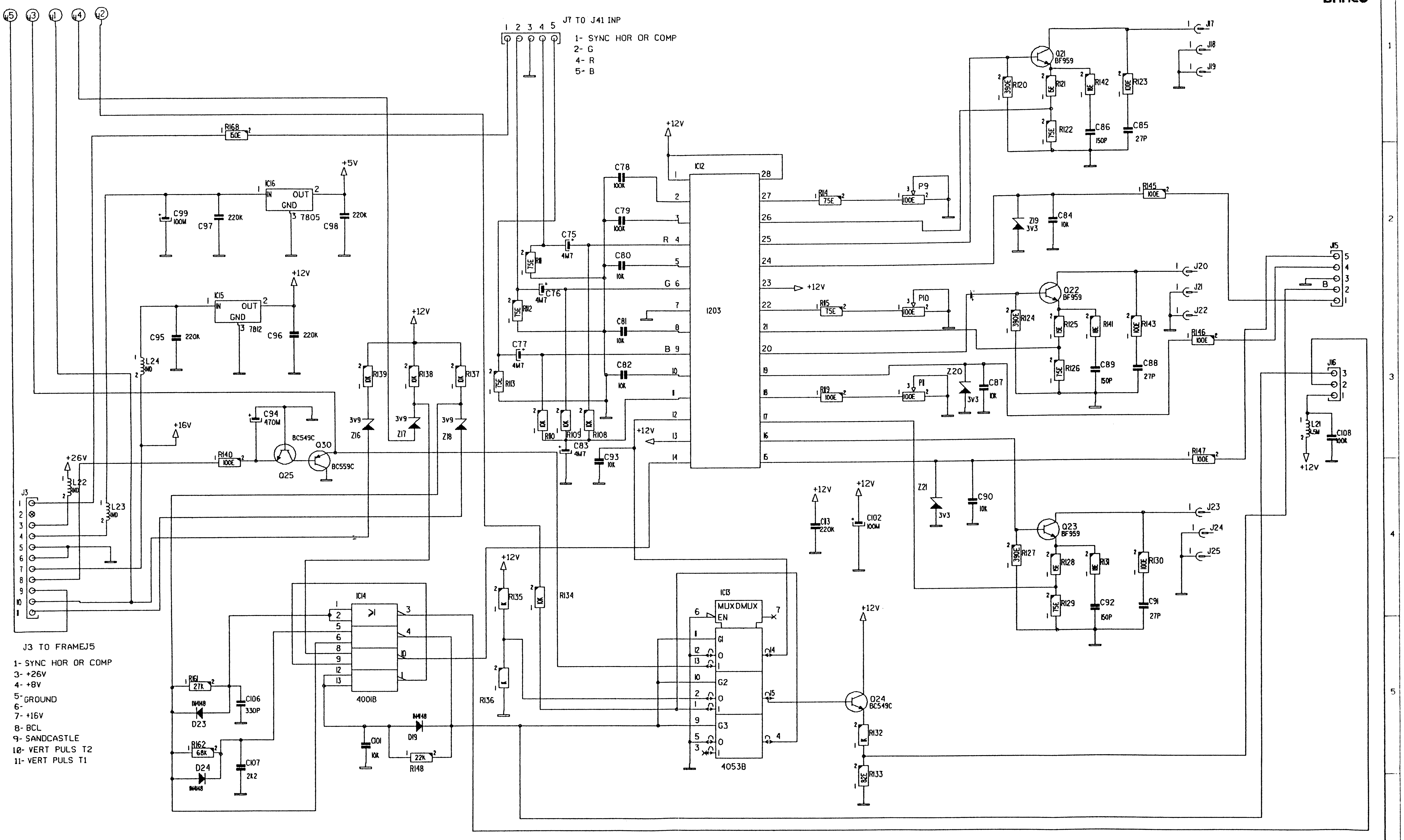

BARCO
+12V
R107 330K
R106 4K7
220K
C74
Q20 BC549C
D15 1N4148
C73 10K
C72 1U
R105 22K
R104 10K
Q19 BC549C
x2
x5
x4
x1
x3
R176 100E
R175 100E
24C16
IC1
IC1 24C16
+5V
IC7
8-BIT MICRO CONTROLLER
XTAL1
XTAL2
EA
RST
RXD/data
TXD/clock
INT0
INT1
T0
T1
WR
RD
PSEN
ALE
P0
P1
P2
8031AH
C69 27P
XT3 12,000
C70 27P
C112 10P
AD0
AD1
AD2
AD3
AD4
AD5
AD6
AD7
A8
A9
A10
A11
DATA/ADDRESS
ADDRESS
J1
J10 TO IR REC
IR 4
J12 TO SMPS
- +5V
- +12V
- DEG
- GROUND
- STAND BY
Q27 BC549C
Q28 BC549C
IC8
EN
C1
1D
74HCT573
A0
A1
A2
A3
A4
A5
A6
A7
IC9
IC10
2764
PROM 8K x 8
NC
PGM
VPP
[OE]
[CE]
EN
&
A 0/8191
O0
O1
O2
O3
O4
O5
O6
O7
J5
IC7 8031AH
D14 1N4148
D13 1N4148
R151 330E
R152 330E
R153 330E
R154 330E
R155 330E
R156 330E
R157 330E
R158 330E
J
TO DISPL
Q17 BC559C
Q18 BC559C
R101 4K7
R102 4K7
D25 1N4148
D26 1N4148
C109 470K
C110 470K
Q29 BC559C
R165 100K
C71 10U
R103 8K2
C121 4K7
R166 470K
- +5V STAND BY
C103 100U
C104 100K
C11 100U
R178 47E
TO BE REMOVED WHEN RS422

Name DEC 46 IR SHEET2 | Article nr. 761988
Date 02 09 92 | Drawn EAD | Checked RDF

VIDEO & COMMUNICATIONS

SCHEMATIC NAME: decoder.sch SHEET NUMBER: 2 DATE: Sep 2, 1992

BARCO



ω5
ω3
ω1
ω4
ω2
1 2 3 4 5
R168 150E
IC16 IN OUT GND 7805
+5V
C99 100M
C97 220K
C98 220K
IC15 IN OUT GND 7812
+12V
C95 220K
C96 220K
L24 1MO
C94 470M
+16V
R140 100E
BC549C Q25
Q30 BC559C
+26V
L22 1MO
L23 1MO
J3
R139 10K
R138 10K
R137 10K
3V9 Z16
3V9 Z17
3V9 Z18
C78 100K
C79 100K
C75 4M7
R111 75E
C80 10K
C76 4M7
R112 75E
C81 10K
C77 4M7
R113 75E
C82 10K
R110 10K
R109 10K
R108 10K
C83 4M7
C93 10K
IC12 I203
R 4
G 6
B 9
R114 75E
P9 100E
R115 75E
P10 100E
R119 100E
P11 100E
Z20 3V3
C87 10K
Q21 BF959
R120 390E
R121 10K
R142 10E
R123 100E
R122 75E
C86 150P
C85 27P
J17
J18
J19
R145 100E
Z19 3V3
C84 10K
Q22 BF959
R124 390E
R125 10K
R141 10E
R143 100E
R126 75E
C89 150P
C88 27P
J20
J21
J22
R146 100E
J15
R147 100E
J16
L21 3.5M
C108 100K
Z21 3V3
C90 10K
C13 220K
C102 100M
Q23 BF959
R127 390E
R128 10K
R131 10E
R130 100E
R129 75E
C92 150P
C91 27P
J23
J24
J25
IC14 4001B
R161 27K
C106 330P
1N4148 D23
R162 68K
D24 1N4148
C107 2K2
C101 10K
1N4148 D19
R148 22K
R135 1K
R136 1K
R134 10K
IC13 MUXDMUX EN G1 G2 G3 4053B
Q24 BC549C
R132 1K
R133 82E
IC14 IC14 4001B
C119 100K
IC13 IC13 4053B

J7 TO J41 INP

1- SYNC HOR OR COMP
2- G
4- R
5- B

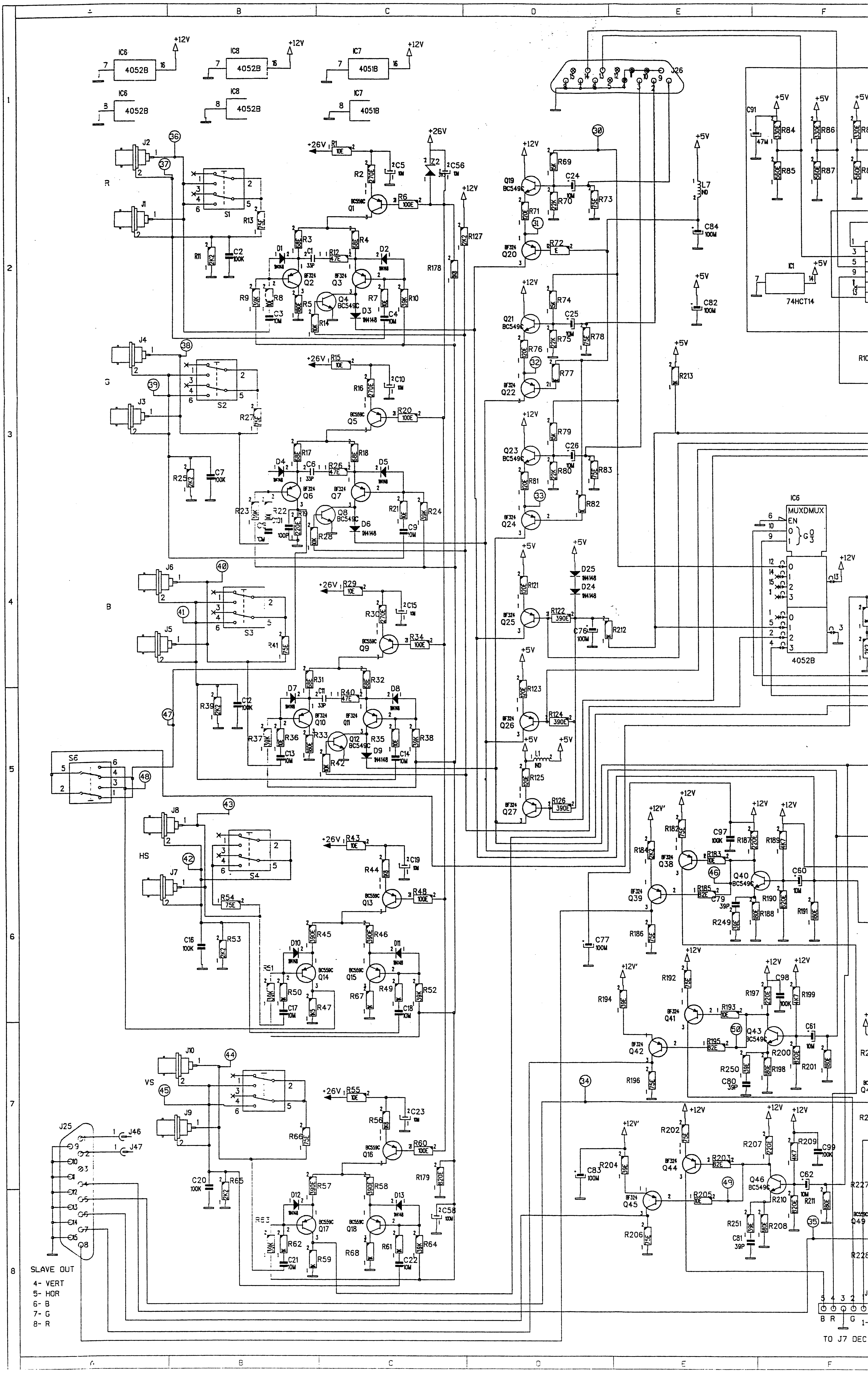
J3 TO FRAMEJ5

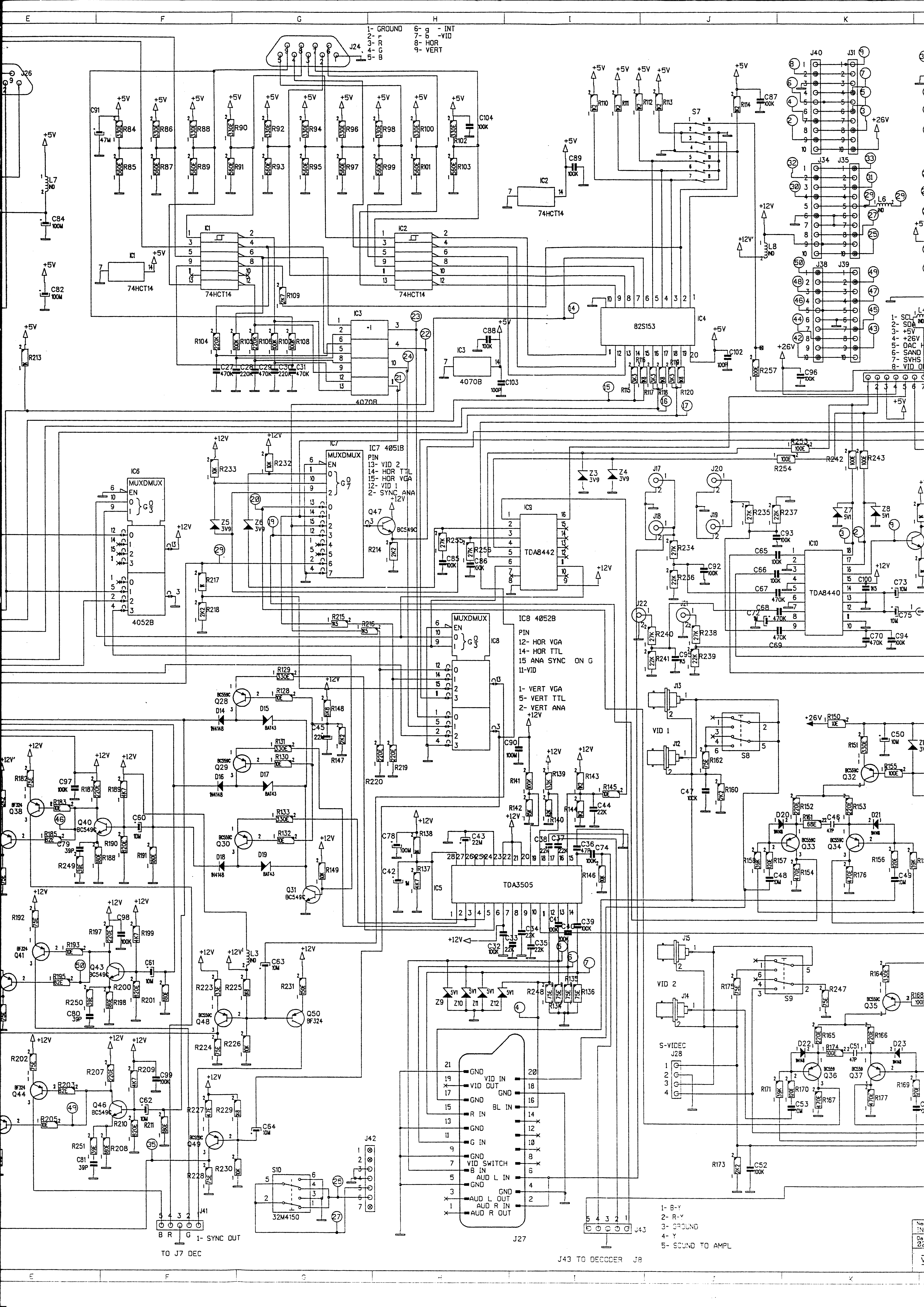
1- SYNC HOR OR COMP
3- +26V
4- +8V
5- GROUND
6-
7- +16V
8- BCL
9- SANDCASTLE
10- VERT PULS T2
11- VERT PULS T1

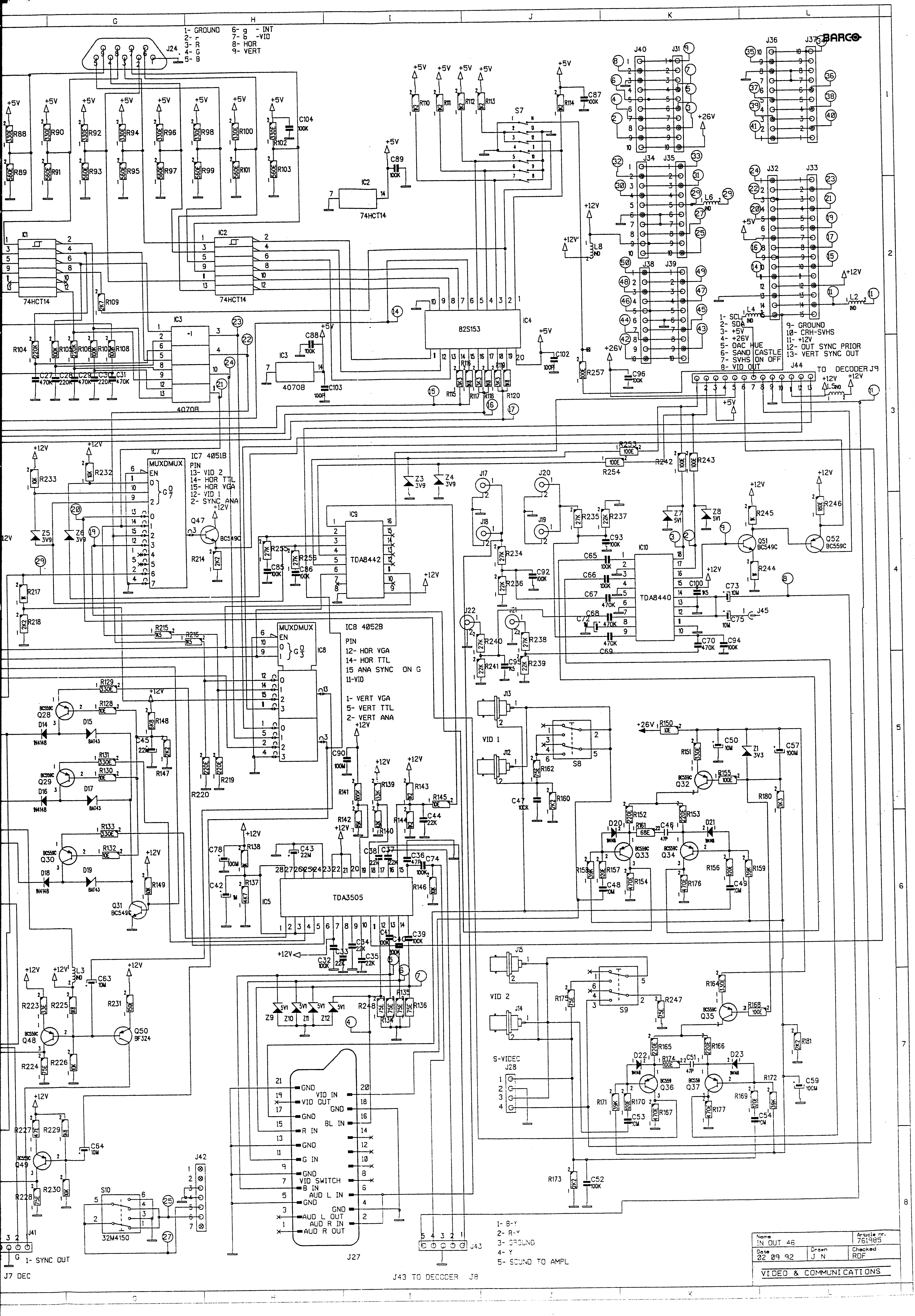
Name		Article nr.
DEC 46 IR	SHEET3	761988
Date	Drawn	Checked
02 09 92	EAD	RDF

VIDEO & COMMUNICATIONS

SCHEMATIC NAME: decoder.sch SHEET NUMBER: 3 DATE: Sep 2, 1992


A
B
C
D
E
F
1
2
3
4
5
6
7
8
IC6 4052B
IC8 4052B
IC7 4051B
+12V
J26
C91 47M
R84
R85
R86
R87
IC1 74HCT14
+5V
J2
J1
J4
J3
J6
J5
J8
J7
J10
J9
R
G
B
HS
VS
S1
S2
S3
S4
S6
+26V
Q1 BC559C
Q2 BF324
Q3 BF324
Q4 BC549C
Q5 BC559C
Q6
Q7
Q8 BC549C
Q9 BC559C
Q10
Q11
Q12 BC549C
Q13 BC559C
Q14 BC559C
Q15 BC559C
Q16 BC559C
Q17 BC559C
Q18 BC559C
Q19 BC549C
Q20 BF324
Q21 BC549C
Q22 BF324
Q23 BC549C
Q24 BF324
Q25 BF324
Q26 BF324
Q27 BF324
Q38
Q39
Q40 BC549C
Q41
Q42
Q43 BC549C
Q44
Q45
Q46 BC549C
Z2
D25 1N4148
D24 1N4148
L1 IND
L7 IND
C84 100M
C82 100M
C76 100M
C77 100M
C83 100M
IC6 MUXDMUX 4052B
EN
G 0/3
J25
J46
J47
SLAVE OUT
4- VERT
5- HOR
6- B
7- G
8- R
TO J7 DEC
B R G
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50


E F G H I J K
1- GROUND 6- g - INT
2- r 7- b -VID
3- R 8- HOR
4- G 9- VERT
5- B
J24
J26
IC1 74HCT14
IC2 74HCT14
IC3 4070B
IC4 82S153
S7
IC7 MUXDMUX
IC7 4051B
PIN
13- VID 2
14- HOR TTL
15- HOR VGA
12- VID 1
2- SYNC ANA
IC6 MUXDMUX 4052B
IC8 MUXDMUX
IC8 4052B
PIN
12- HOR VGA
14- HOR TTL
15 ANA SYNC ON G
11-VID
1- VERT VGA
5- VERT TTL
2- VERT ANA
IC9 TDA8442
IC10 TDA8440
IC5 TDA3505
J40 J31 J34 J35 J38 J39
1- SCL
2- SDA
3- +5V
4- +26V
5- DAC H
6- SAND
7- SVHS
8- VID O
J17 J18 J19 J20 J21 J22
J13 VID 1 J12 S8
J15 VID 2 J14 S9
S-VIDEC J28
J27
GND
VID IN
VID OUT
GND
R IN
BL IN
GND
G IN
GND
VID SWITCH
B IN
AUD L IN
GND
GND
AUD L OUT
AUD R IN
AUD R OUT
J43
1- B-Y
2- R-Y
3- GROUND
4- Y
5- SOUND TO AMPL
J43 TO DECODER J8
J41
B R G
1- SYNC OUT
TO J7 DEC
S10 32M4150
J42
Q28 Q29 Q30 BC559C
Q31 BC549C
Q32 Q33 Q34 Q35 Q36 Q37
Q38 Q41 Q44 BF324
Q40 Q43 Q46 BC549C
Q47 BC549C
Q48 Q49 BC559C
Q50 BF324
Z3 Z4 3V9
Z5 Z6 3V9
Z7 Z8 5V1
Z9 Z10 Z11 Z12 5V1
L3 L6 L7 L8
+5V +12V +12V' +26V


BARCO
J24
1- GROUND
2- r
3- R
4- G
5- B
6- g - INT
7- b - VID
8- HOR
9- VERT
IC1 74HCT14
IC2 74HCT14
IC3 4070B
IC4 82S153
S7
J40 J31 J36 J37
J34 J35 J32 J33
J38 J39
L6 L8 L4 L2
J44 TO DECODER J9
1- SCL
2- SDA
3- +5V
4- +26V
5- DAC HUE
6- SAND CASTLE
7- SVHS ON OFF
8- VID OUT
9- GROUND
10- CRH-SVHS
11- +12V
12- OUT SYNC PRIOR
13- VERT SYNC OUT
IC7 4051B
PIN
13- VID 2
14- HOR TTL
15- HOR VGA
12- VID 1
2- SYNC ANA
MUXDMUX
IC9 TDA8442
IC10 TDA8440
IC8 4052B
PIN
12- HOR VGA
14- HOR TTL
15 ANA SYNC ON G
11-VID
1- VERT VGA
5- VERT TTL
2- VERT ANA
J17 J20 J18 J19 J22 J21 J45
J13 VID 1 J12 S8
IC5 TDA3505
Q28 Q29 Q30 Q31 Q32 Q33 Q34 Q35 Q36 Q37 Q47 Q48 Q49 Q50 Q51 Q52
J15 VID 2 J14 S9
S-VIDEC J28
J27
GND VID IN VID OUT GND R IN BL IN GND G IN GND VID SWITCH B IN AUD L IN GND GND AUD L OUT AUD R IN AUD R OUT
S10 32M4150
J42
J41 1- SYNC OUT
J7 DEC
J43
1- B-Y
2- R-Y
3- GROUND
4- Y
5- SOUND TO AMPL
J43 TO DECODER J8
Name IN OUT 46
Article nr. 761985
Date 02 09 92
Drawn J N
Checked RDF
VIDEO & COMMUNICATIONS

ORDER NO.	DESCRIPTION	ITEM
K101152	R CF H 22K J 0W25	R236,R237,R239,R241,R70 ,R75 , R80
K101153	R CF H 27K J 0W25	R234,R235,R238,R240,R255,R256
K101154	R CF H 33K J 0W25	R139
K101155	R CF H 39K J 0W25	R10 ,R158,R159,R171,R172,R23 , R24 ,R37 ,R38 ,R51 ,R52 ,R63 , R64 ,R9
K101160	R CF H100K J 0W25	R105,R107,R141
K101164	R CF H220K J 0W25	R104,R106
K111465	C EL RA 47M Z 16E2 85	C60 ,C61 ,C62
K111477	C EL RA 100M Z 25E2 85	C57 ,C58 ,C59 ,C76 ,C77 ,C78 , C82 ,C83, C90 ,C91
K111531	C EL RAMI10M M 35E2 85	C10 ,C15 ,C19 ,C23 ,C24 ,C25 , C26 ,C31 ,C5 ,C56 ,C64 ,C73 , C75 ,C50 ,C63
K111532	C EL RAMI22M M 35E2 85	C43 ,C45
K111546	C EL RAMI 1M M 50E2 85	C42 ,C72
K111678	C EL BRA 10M M 25E2 85	C13 ,C14 ,C17 ,C18 ,C21 ,C22 , C3 ,C4 ,C48 ,C49 ,C53 ,C8 , C9 ,C54
K112230	C NP0 MI 10P G 63E2	C
K112236	C NP0 MI 33P G 63E2	C1 ,C11 ,C6
K112237	C NP0 MI 39P G 63E2	C79 ,C80 ,C81
K112238	C NP0 MI 47P G 63E2	C36
K112242	C NP0 MI 100P J 63E2	C101,C92 ,C93 ,C94
K1127741	C CE MI 100N U 63E2	C96 ,C97 ,C98 ,C99
K1137161	C POMERA 22N K100E2 85	C33 ,C34 ,C35 ,C37 ,C38 ,C44
K113724	C POMERA 100N K 63E2 85	C12 ,C16 ,C2 ,C20 ,C32 ,C39 , C40 ,C41 ,C47 ,C52 ,C66 ,C7 , C74 ,C85 ,C86 ,C88 ,C95 C100,C102,C103,C65 ,C87 ,C89 ,
K113728	C POMERA 220N K 63E2 85	C28 ,C30
K113732	C POMERA 470N K 63E2 85	C27 ,C29 ,C67 ,C68, C69 ,C70
K114100	C POMERA 100N K100E4 85	C104
K131411	Q BC549C N SS TO92	Q12 ,Q19 ,Q21 ,Q23 ,Q31 ,Q4 , Q40 ,Q43 ,Q46 ,Q47 ,Q51 ,Q8
K1314182	Q BC559C P SS TO92	Q13 ,Q14 ,Q15 ,Q16 ,Q17 ,Q18 , Q28 ,Q29 ,Q30 ,Q32 ,Q33 ,Q34 , Q35 ,Q36 ,Q37 ,Q48 ,Q49 ,Q50 , Q52 ,Q1 ,Q5 ,Q9
K131621	D 1N4148 SW DO35	D1 ,D10 ,D11 ,D12 ,D13 ,D14 , D16 ,D18 ,D2 ,D20 ,D21 ,D22 , D23 ,D24 ,D25 ,D4 ,D5 ,D6 , D7 ,D8 ,D9
K1316217	D 1N4148 SW DO35	D3
K131636	D BAT43 SCH DO35	D15 ,D17 ,D19
K131716	D ZEN 5V1 0W5 C DO35	R100,R102,R84 ,R86 ,R88 ,R90 , R92 ,R94 ,R96 ,R98 ,Z10 ,Z11 , Z12 ,Z3 ,Z4 ,Z7 ,Z8 ,Z9
K131754	D ZEN 3V3 0W5 C DO35	Z1
K131757	D ZEN 3V9 0W5 C DO35	Z2 ,Z5 ,Z6
K132507	Q BF324 P SS TO92	Q20 ,Q24 ,Q25 ,Q26 ,Q27 ,Q39 , Q41 ,Q42 ,Q44 ,Q45

1. K761985

ORDER NO.	DESCRIPTION	ITEM
K101100	R CF H 1E J 0W25	R72 ,R77 ,R82
K100148	R CF V 10K J 0W25 E2	R146
K101112	R CF H 10E J 0W25	R1 ,R128,R130,R132,R145,R15 , R183,R193,R203,R21,R22 R29, R35,R36,R43,R55 ,R7,R8,R150
K101118	R CF H 33E J 0W25	R223
K101119	R CF H 39E J 0W25	R184,R194,R204,R249,R250,R251
K101120	R CF H 47E J 0W25	R12 ,R227,R26 ,R40
K101122	R CF H 68E J 0W25	R17 ,R18 ,R3 ,R31 ,R32 ,R4
K101123	R CF H 82E J 0W25	R185,R195,R205
K101124	R CF H100E J 0W25	R243
K1011231	R CF H 75E J 0W25	R13 ,R134,R135,R136,R162,R175, R182,R186,R192,R196,R202,R206, R224,R228,R247,R248,R27 ,R41 , R54 ,R66 ,R73 ,R78 ,R83
K101124	R CF H100E J 0W25	R155,R168,R20 ,R242,R253,R254, R257,R34 ,R48,R6,R60
K101125	R CF H120E J 0W25	R121,R123,R125,R156,R157,R169, R170,R71 ,R76 ,R81
K101126	R CF H150E J 0W25	R231
K101127	R CF H180E J 0W25	R188,R191,R198,R201,R208,R211, R246,R33 ,R5
K101128	R CF H220E J 0W25	R152,R153,R165,R166,R187,R197, R207,R219,R220
K101129	R CF H270E J 0W25	R16 ,R2 ,R30
K101130	R CF H330E J 0W25	R151,R164,R19
K101131	R CF H390E J 0W25	R122,R124,R126,R129,R131,R133, R45 ,R46 ,R57 ,R58
K101132	R CF H470E J 0W25	R154,R167,R176,R177
K101133	R CF H560E J 0W25	R101,R103,R85 ,R87 ,R89 ,R91 , R93 ,R95 ,R97 ,R99
K101134	R CF H680E J 0W25	R56
K101135	R CF H820E J 0W25	R179,R190,R200,R210
K101136	R CF H 1K J 0W25	R138,R212,R213,R217,R244,R245, R49 ,R50 ,R59 ,R61 ,R62 ,R67 , R68
K101137	R CF H 1K2 J 0W25	R110,R111,R112,R113,R114
K101138	R CF H 1K5 J 0W25	R215,R216,R47
K101139	R CF H 1K8 J 0W25	R116,R119,R120,R178,R225,R229, R44
K101140	R CF H 2K2 J 0W25	R11 ,R147,R160,R173,R181,R214, R218,R25 ,R39 ,R53 ,R65
K101141	R CF H 2K7 J 0W25	R109
K101142	R CF H 3K3 J 0W25	R108,R115,R117,R118,R180
K101144	R CF H 4K7 J 0W25	R137,R189,R199,R209
K101146	R CF H 6K8 J 0W25	R127,R148
K101148	R CF H 10K J 0W25	R14 ,R149,R226,R230,R232,R233, R28 ,R42
K101149	R CF H 12K J 0W25	R140
K101150	R CF H 15K J 0W25	R142,R69 ,R74 ,R79

ORDER NO.	DESCRIPTION	ITEM
K721685	SPR BNC ISOL 40	0121,0221
K721771	HSG MN40 DCD16 CSB FRM	01
K789026	PCB MN46 I/O R.C. 7	PC
K800658	SPR L13.5 H 5 M 3 M	0300
K800762	SLDRLUG SCR 1TAG D9.8 L24	0120,0220
K802351	DPL MN46 OCM28 I/O ANA	02
K802353	SPR L13.5 D 6 M 2.5 M	0201
K804136	DPL MN46 OCM2846	0110
V1115119	C EL RA 47M M 25E2 105	C84

2. K761921

ORDER NO.	DESCRIPTION	ITEM
K101114	R CF H 15E J 0W25	R114,R117,R121
K101115	R CF H 18E J 0W25	R111,R124,R125
K101123	R CF H 82E J 0W25	R110
K1011231	R CF H 75E J 0W25	R38 ,R39 ,R40 R113,R118,R119,R122,R123
K101124	R CF H100E J 0W25	R106,R115,R131,R132,R133,R134, R135,R136,R140,R83
K101130	R CF H330E J 0W25	R142,R143
K101131	R CF H390E J 0W25	R112,R116,R120
K101133	R CF H560E J 0W25	R144,R145
K101136	R CF H 1K J 0W25	R37 ,R59 ,R82
K101137	R CF H 1K2 J 0W25	R25 ,R80 ,R81
K101139	R CF H 1K8 J 0W25	R157
K101139	R CF H 1K8 J 0W25	R151,R156
K101144	R CF H 4K7 J 0W25	R26
K101144	R CF H 4K7 J 0W25	R129,R78
K101146	R CF H 6K8 J 0W25	R126
K101147	R CF H 8K2 J 0W25	R152,R153
K101148	R CF H 10K J 0W25	R105,R141,R154,R35 ,R36 ,R41 , R42 ,R161
K101150	R CF H 15K J 0W25	R107,R109
K101152	R CF H 22K J 0W25	R130
K101153	R CF H 27K J 0W25	R128
K101158	R CF H 68K J 0W25	R137
K101160	R CF H100K J 0W25	R108,R127,R79 R139
K101164	R CF H220K J 0W25	R138
K1068262	R TCE V 1K M 0W5 R10SC	P4 ,P5
K1068292	R TCE V 10K K 0W5 R10SC	P6
K1068332	R TCE V100K M 0W5 R10SC	P7
K107167	R PCA V 4K7 M 0W2 AR17	P8 ,P9
K111466	C EL RA 100M Z 16E2 85	C12
K111476	C EL RA 47M Z 25E2 85	C11 ,C79
K111477	C EL RA 100M Z 25E2 85	C44
K111479	C EL RA 470M Z 25E2 85	C81
K111531	C EL RAMI10M M 35E2 85	C72
K1115915	C EL5RAMI 4M7M 35E2 85	C19 ,C20 ,C21 ,C22
K112235	C NP0 MI 27P G 63E2	C74 ,C76 ,C77

2.4 I/O BOARD
Parts list

ORDER NO.	DESCRIPTION	ITEM
K132507	Q BF324 P SS TO92	Q10 ,Q11 ,Q2 ,Q22 ,Q3 ,Q38 , Q6 ,Q7
K132779	U 3505 TDA DIP28 P	IC5
K132839	U 8440 TDA DIP18 P	IC10
K137311	U 4051B DIP16 P	IC7
K137353	U 74LS14 DIP14 P	IC1 ,IC2
K137392	U 4070B DIL14 P	IC3
K137600	U 4052B DIP16 P	IC6 ,IC8
K137726	U 8442 TDA DIP16 P	IC9
K302108	CORE TUBE 1.3/ 3.5 X 3	Q1 ,Q10 ,Q11 ,Q2 ,Q3 ,Q5 , Q6 ,Q7 ,Q9
K3061222	CH AX NS 1.5 UH	L4 ,L5 ,L6 ,L7
K3061322	CH AX NS 10 UH	L1 ,L2 ,L3 ,L8
K312899	SPR PCB L 6.35	0401
K3131021	J CINCH FBT P 1	J17 ,J18 ,J19 ,J20 ,J21 ,J22
K313140	J BNC FCT P 1 50E S	J12 ,J13 ,J14 ,J15
K3131401	J BNC FCT P 1 50E LG	J1 ,J10 ,J2 ,J3 ,J4 ,J5 , J6 ,J7 ,J8 ,J9
K3133373	SPR L 9.4	0402
K3135012	J DE09 FBT P 9 L13 WRAP	J24
K3135033	J D LOCK SCR 4/M3	0301
K313509	J DA15 FBT P 15 L13 WRAP	J25
K3135451	J PERI FBT P 21	J27
K313551	J U0.3 FBT P 20 R2.54	IV4
K313580	J MT MBT P 5 R2.5 BLA	J43
K3135805	J MT MBT P 5 R2.5 GRE	J41
K3135866	J MT MBT P 7 R2.5 BLU	J42
K313689	J MT MBT P 13 R2.5 BLA	J44
K313755	J DE15 FBT P 15 CPL	J26
K3138511	J M-DIN FBT P 4	J28
K3153102	J TAB MBT H 2.8S0.5	J
K324150	SW SL JSA 2U T PCB	S1 ,S10 ,S2 ,S3 ,S4 ,S5 , S6 ,S8 ,S9
K324185	SW DIL 1A 7P T	S7
K329004	U S BVC MN46 I/O R.C. 1	IC4
K34217004	UN WIRE BLA AWG24 L04	W1
K34217008	UN WIRE BLA AWG24 L08	W2
K34217305	UN WIRE ORA AWG24 L05	W6
K34217308	UN WIRE ORA AWG24 L08	W5
K34217405	UN WIRE YEL AWG24 L05	W4
K34217408	UN WIRE YEL AWG24 L08	W3
K344037	CD CT INPC 60 2XP15	J33
K344046	CD CT INPC 60 2XP10	J31 ,J36 ,J37 ,J39
V3492081	WIRE UNIT G 100MM 00	W7
K3615075	SCR DIN7981 3.2X 8.5	0111,0400
K3621121	SCR DIN7985 M 2.5X 6	0202
K362121	SCR DIN7985 M 3 X 6 F N	0304
K3675256	WSHR D 3.1 X 6.2 T0.6 J	0302
K7123023	WSHR D 3.25X 7 T0.5 B	0303
K721684	J BNC SPR	0122,0222
K7216842	J BNC SPR RED	0223
K7216845	J BNC SPR GRE	0224
K7216846	J BNC SPR BLU	0225

3. K761922 RGB ANA

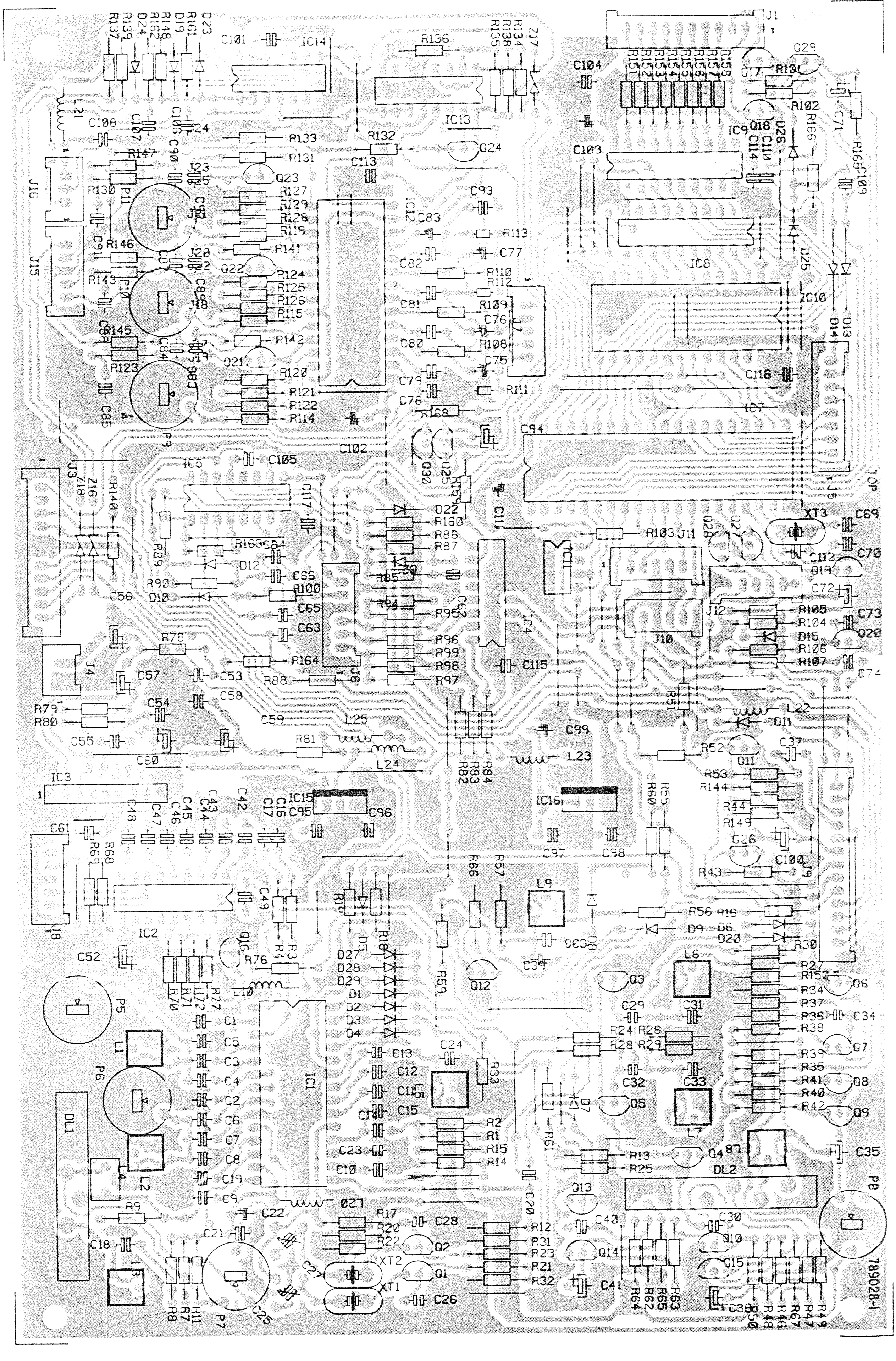
ORDER NO.	DESCRIPTION	ITEM
K101112	R CF H 10E J 0W25	R102,R132,R134,R136,R22 ,R6 , R60 ,R65 ,R66 ,R71 ,R72 ,R77 , R85 ,R90 ,R94 ,R98
K101115	R CF H 18E J 0W25	R125
K101116	R CF H 22E J 0W25	R111,R114,R117,R121,R124
K101120	R CF H 47E J 0W25	R115,R119,R123,R44 ,R45 ,R46 , R57
K101122	R CF H 68E J 0W25	R14 ,R61 ,R64 ,R67 ,R70 ,R73 , R76
K101123	R CF H 82E J 0W25	R22
K1011231	R CF H 75E J 0W25	R146,R147,R148,R149,R150,R16 , R24 ,R38 ,R39 ,R40 ,R8
K101124	R CF H100E J 0W25	R100,R106,R131,R133,R135,R140, R83 ,R84 ,R88 ,R92 ,R96
K101125	R CF H120E J 0W25	R54
K101126	R CF H150E J 0W25	R110,R26
K101127	R CF H180E J 0W25	R1 ,R12 ,R17 ,R20 ,R28 ,R29 , R5 ,R81 ,R9
K101128	R CF H220E J 0W25	R15 ,R23 ,R27 ,R7
K101129	R CF H270E J 0W25	R86 ,R89 ,R93
K101131	R CF H390E J 0W25	R112,R116,R120,R37 ,R48 ,R51
K101133	R CF H560E J 0W25	R25 ,R80
K101135	R CF H820E J 0W25	R10 ,R101,R18 ,R2 ,R34
K101136	R CF H 1K J 0W25	R30 ,R31 ,R47 ,R52 ,R53 ,R58 , R59 ,R82
K101137	R CF H 1K2 J 0W25	R33
K101138	R CF H 1K5 J 0W25	R32
K101139	R CF H 1K8 J 0W25	R104,R151,R156,R97
K101140	R CF H 2K2 J 0W25	R103,R87 ,R91 ,R95 ,R99
K101144	R CF H 4K7 J 0W25	R11 ,R129,R157,R19 ,R3 ,R78
K101146	R CF H 6K8 J 0W25	R126
K101147	R CF H 8K2 J 0W25	R152,R153
K101148	R CF H 10K J 0W25	R105,R141,R161,R35 ,R36 ,R41 , R42 ,R43
K101150	R CF H 15K J 0W25	R107,R109
K101153	R CF H 27K J 0W25	R128,R162
K101155	R CF H 39K J 0W25	R49 ,R50 ,R55 ,R56 ,R62 ,R63 , R68 ,R69 ,R74 ,R75
K101158	R CF H 68K J 0W25	R137
K101160	R CF H100K J 0W25	R108,R127,R79
K101164	R CF H220K J 0W25	R130
V1026926	R MF H 9K09F 0W6	R154
K1028241	R MF H 91E G 0W6	R113,R118,R122
K1068262	R TCE V 1K M 0W5 R10SC	P4 ,P5
K1068292	R TCE V 10K K 0W5 R10SC	P6
K1068332	R TCE V100K M 0W5 R10SC	P7
V107008	R TCE H 5K M 0W5 S7 TS	P10
K107167	R PCA V 4K7 M 0W2 AR17	P8 ,P9
V107507	R MCE H100E K 0W75 M20SS	P1 ,P2 ,P3
K111466	C EL RA 100M Z 16E2 85	C12
K111476	REPLACED BY V1115119	C11 ,C79
K111477	C EL RA 100M Z 25E2 85	C42 ,C44

ORDER NO.	DESCRIPTION	ITEM
K112242	C NP0 MI 100P J 63E2	C60
K112364	C N750MI 150P J 63E2	C66 ,C67 ,C68
K112366	C N750MI 220P J 63E2	C52 ,C53
K112368	C N750MI 330P J 63E2	C64
K112743	C CE MI 2N2K 63E2	C73
K112760	C CE MI 3N3K 63E2	C59
K112763	C CE MI 10N U 63E2	C69 ,C70 ,C71
K1137121	C POMERA 10N K100E2 85	C18 ,C23 ,C24 ,C25 ,C61
K113724	C POMERA 100N K 63E2 85	C13 ,C26 ,C27 ,C4 ,C50 ,C62 , C63 ,C65 ,C75
K113728	C POMERA 220N K 63E2 85	C32 ,C78
K113732	C POMERA 470N K 63E2 85	C28 ,C80
K131411	Q BC549C N SS TO92	Q18 ,Q24 ,Q29
K1314182	Q BC559C P SS TO92	Q17 ,Q28
K131621	D 1N4148 SW DO35	D13 ,D14 ,D15 ,D16 ,D17 ,D18
K131636	D BAT43 SCH DO35	D12
K131649	D LED D5 HLDR	0400
K131664	D LED D5 T RED	0401
K131754	D ZEN 3V3 0W5 C DO35	Z3 ,Z4 ,Z5
K131757	D ZEN 3V9 0W5 C DO35	Z1 ,Z6
K132568	Q BF959 SS TO92	Q25 ,Q26 ,Q27
K132826	U 1203 LM DIP28 P	U2
K137320	U 4001B DIP14 P	U3
K137391	U 4053B DIL16 P	U1
K137392	U 4070B DIL14 P	U5
K137590	U 74HC4538 DIP16 P	U4
K313276	J MOD1 MBT P 10 R2.5 SN	J17 ,J18 ,J19
K3135372	J MT MBT P 6 R2.5 RED	J3
K313572	J MT MBT P 3 R2.5 BLA	J25
K313580	J MT MBT P 5 R2.5 BLA	J26
K3135802	J MT MBT P 5 R2.5 RED	J2 ,J27
K3135866	J MT MBT P 7 R2.5 BLU	J1
K3135882	J MT MBT P 11 R2.5 RED	J23
K313745	SUB D P15 FEMALE PCB LA	J28
K34216820	UN WIRE WHI AWG24 L20	W3
K34217019	UN WIRE BLA AWG24 L19	W4
K344005	UN W MN46 COAX 280	
K348201	SLV OIL D 1.5 L12 RED	W5
K362121	SCR DIN7985 M 3 X 6 F N	0203
K3621225	SCR DIN7985 M 3 X 6	0300
K367435	RVT POPS AD34ABS D2.4	0202
K367502	WSHR DIN6798 A 3.2 F Z	0204,0301
K367600	NUT BLOC M 3	0201
K7219526	KNOB TURN MN BLUE SHORT	
K722065	KNOB TRIMPOT RECTANGULAR	
K789064	PC MN46 RGB VGA	
V107008	R TCE H 5K M 0W5 S7 TS	P10
V107507	R MCE H100E K 0W75 M20SS	P1 ,P2 ,P3
V602941	DPL MN46 SCM28 VGA 00	0200

Parts list

ORDER NO.	DESCRIPTION	ITEM
K3241871	SW DIP 1M P 5 BS AU	S1
K34216820	UN WIRE WHI AWG24 L20	W3
K34217019	UN WIRE BLA AWG24 L19	W4
K344072	CBL COA RG178BU50 L 180	W1
K348006	CBL ACC TIE B L140 W2.4	
C348201	SLV OIL D 1.5 L 12 RED	W5
K3621225	SCR D7985 M 3 X 8 S B	0202
K367502	WSHR D6798 A 3.2 S Z	0203
V367600	NUT BLOC M 3	0201
V601360	DPL MN46 INP RGB MDII 01	0100
V721684	J BNC ACC WHSR FR BLA	0104
V7216842	J BNC ACC WHSR FR RED	0107
V7216845	J BNC ACC WHSR FR GRE	0106
V7216846	J BNC ACC WHSR FR BLU	0105
V721685	J BNC ACC WHSR FR BLA	0103
K7219526	BTN T CNV L17.5 BLU	
K722065	KNOB TRIMPOT RECTANGULAR	
K789064	PC MN46 RGB VGA	PC
K800762	SLDRLUG SCR 1TAG D9.8 L24	0102

ORDER NO.	DESCRIPTION	ITEM
K111479	C EL RA 470M M 25E2 85	C81
K111531	REPLACED BY V1115319	C1 ,C2 ,C45 ,C46 ,C47 ,C48 , C49 ,C5 ,C51 ,C72
K1115915	C EL5 RA 4M7M 35E2 85	C19 ,C20 ,C21 ,C22
V111679	C EL BRA 10M M 25E2 85	C33 ,C34 ,C35 ,C36 ,C37 ,C38 , C39 ,C40 ,C41 ,C43
V112234	C NP0 MI 22P G 63E2	C29 ,C30 ,C31
V112236	C NP0 MI 33P G 63E2	C15 ,C16
V112240	C NP0 MI 68P G 63E2	C17
V112242	C NP0 MI 100P G 63E2	C14 ,C60
V112243	C NP0 MI 120P J 63E2	C74 ,C76 ,C77
V112364	C N750MI 150P G 63E2	C66 ,C68
V112365	C N750MI 180P G 63E2	C67
V112366	C N750MI 220P G 63E2	C52 ,C53
V112368	C N750MI 330P G 63E2	C64
C112743	C CE MI 2N2K 63E2	C73
K112760	C CE MI 3N3K 63E2	C59
C112763	C CE MI 10N U 63E2	C69 ,C70 ,C71
K1127741	REPLACED BY V1127830	C3 ,C7 ,C9
V1127830	C X7R MU 100N K 50E2 125	C63
K1137121	C POMERA 10N K100E2 85	C18 ,C23 ,C24 ,C25 ,C28
V114088	C POMERA 100N K 63E2 85	C13 ,C26 ,C27 ,C4 ,C50 ,C54 , C55 ,C56 ,C57 ,C58 ,C62 ,C65 , C75
V114090	C POMERA 220N K 63E2 85	C32
K1159161	REPLACED BY V115161	C61
V131411	Q BC549C N SS TO92	Q18 ,Q2 ,Q24 ,Q29 ,Q3 ,Q4
V1314182	Q BC559C P SS TO92	Q10 ,Q11 ,Q12 ,Q13 ,Q17 ,Q19 , Q20 ,Q21 ,Q22 ,Q23 ,Q28
V1315045	D BAT85 SCH DO34	D12
V1316211	D 1N4148 SW DO35	D10 ,D11 ,D13 ,D14 ,D15 ,D16 , D17 ,D18 ,D2 ,D3 ,D4 ,D5 , D6 ,D7 ,D8 ,D9
K131649	D LED D5 HLDR	0400
K131664	D LED D5 T RED	0401
V131754	D ZEN 3V3 0W5 C DO35	Z3 ,Z4 ,Z5
V131757	D ZEN 3V9 0W5 C DO35	Z1 ,Z2 ,Z6
V132507	Q BF324 P SS TO92	Q1 ,Q14 ,Q15 ,Q16 ,Q5 ,Q6 , Q7 ,Q8 ,Q9
V132590	Q BF959 N SS TO92	Q25 ,Q26 ,Q27
V134138	U 1203 LM DIP28 P	U2
C137320	U 4001B DIP14 P	U3
K137590	U 74HC4538 DIP16 P	U4
C137700	U 4053B DIP16 P	U1
V3061322	CH AX NS 10 UH	L1 ,L2
V313100	J BNC FCT P 1 75E LUG	0101
V3131002	J BNC ACC NUT	0108
K313276	J MD1 MBT P10 R1SN	J17 ,J18 ,J19
K3135372	J MT I MBT P 6 R1SN RED	J3
K313572	J MT I MBT P 3 R1SN BLK	J25
K3135809	J MT FL MBT P 5 E1SN BLK	J26
K3135866	J MT I MBT P 7 R1SN BLU	J1
K3135882	J MT I MBT P11 R1SN RED	J23
K324147	SW SLD L102 1C BS	S2


J1
TOP
789028-1
IC1
IC2
IC3
IC4
IC5
IC6
IC7
IC8
IC9
IC10
IC11
IC12
IC13
IC14
IC15
IC16
J3
J4
J5
J6
J7
J8
J9
J10
J11
J12
J13
J15
J16
P5
P6
P7
P8
P9
P10
P11
XT1
XT2
XT3
DL1
DL2
L1
L2
L3
L6
L7
L8
L9
L10
L20
L21
L22
L23
L24
L25
C94
C102

This PCB is used in unit no. K761988

Name		PCB no.
DECODER BOARD		K789028
Date	**Drawn**	**Checked**
25/06/92	RIP	RIP
Video & Communications		

2.5 DECODER BOARD

PCB no. **K789028** is used in board no. **K761988.**

Please refer to the parts list in the back of this chapter.

- Feed a SECAM color test pattern.

5. BELL FILTER (L7)

- Connect an oscilloscope to pin15 of IC1.
- Adjust L7 to obtain a flat amplitude of the chroma signal between two successive video lines.

6. (B-Y) DISCRIMINATOR (L1-P5)

- Connect an oscilloscope to pin 7 of IC2.
- Adjust L1 so that the level of the (B-Y) signal without color information equals the level during blanking.
- Adjust P5 to obtain the same amplitude of the (B-Y) signal as in §4.

7. (R-Y) DISCRIMINATOR (L2-P6)

- Connect an oscilloscope to pin 8 of IC2.
- Adjust L2 so that the level of the (R-Y) signal without color information equals the level during blanking.
- Adjust P6 to obtain the same amplitude of the (R-Y) signal as in §4.

8. SECAM IDENTIFICATION (L5)

- Connect a voltmeter between pins 20 and 21 of IC1.
- Adjust L5 to obtain a maximuml voltage reading with correct color reproduction.

- Feed an NTSC3,58 test pattern.

9. REFERENCE OSCILLATOR (C25)

- If you get no color, adjust trimming capacitor C25 until you see color on the screen.
- Short-circuit pin 17 of IC1 to ground.
- Adjust C25 to obtain a color zero beat.
- Remove the short-circuit.

10. COMB FILTER (L8-P8)

- Connect an oscilloscope to node R67/Q15 (Y-signal).
- Adjust L8 to obtain a minimum chroma component in the Y-signal.
- Adjust P8 to obtain a minimum chroma component in the Y-signal.

11. HORIZONTAL AMPLITUDE (P12)

Notice: only adjust this potentiometer when you have replaced IC4, R94, R95, R96 or IC15 (12V stabiliser)
- With the remote control,adjust the contrast to maximum value (63).
- Connect a voltmeter to pin 2 of connector J6.
- Adjust P12 to obtain a DC voltage of +7.3V.

- Feed PAL color test pattern.

1. REFERENC OSCILLATOR (C27)

- If there is no color, adjust trimming capacitor C27 until you see a color picture.
- Short-circuit pin 17 of IC1 to ground.
- Adjust the trimming capacitor C27 to obtain a color zero beat.
- Remove the short-circuit.

2. CHROMA REJECTOR (L9)

- Connect an oscilloscope to pin 17 of IC2 (Y-signal).
- Adjust L9 to obtain a minimum chroma component in the Y-signal.

3. CHROMA FILTER (L6)

- Connect an oscilloscope to pin 15 of IC1 (C-signal)
- Adjust L6 to obtain a maximum chroma signal.

4. DELAY LINE MATRIX (L3-P7)

- Connect an oscilloscope to pin 18 of IC5 on I/O board (B-Y signal).
- Adjust L3 (delayed phase adjustment) and P7 (delayed amplitude adjustment) to obtain the situation of fig. A. Fig.B shows the situation in case of an incorrect adjustment.
- Write down the amplitude of the B-Y signal.
- Connect an oscilloscope to pin 17 of IC5 on I/O board (R-Y signal).
- Write down the amplitude of the R-Y signal.

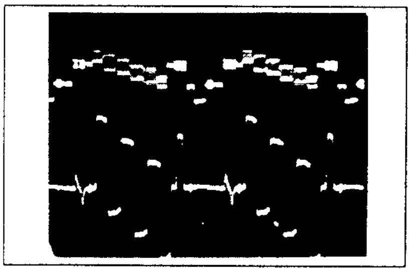


Fig.A: Upper track: video signal
Lower track: correctly adjusted PAL delay decoder

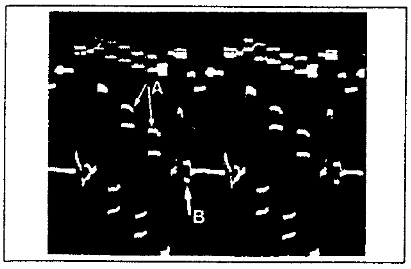


Fig.B: Upper track: video signal
Lower track: A. incorrect PHASE setting
B. incorrect AMPLITUDE setting

K761988

ORDER NO.	DESCRIPTION	ITEM
K101108	R CF H 4E7 J 0W25	R78 ,R81
K101115	R CF H 18E J 0W25	R131,R141,R142
K101116	R CF H 22E J 0W25	R121,R125,R128
K101120	R CF H 47E J 0W25	R114,R115,R119
K101122	R CF H 68E J 0W25	R56
K1011231	R CF H 75E J 0W25	R111,R112,R113
K101124	R CF H100E J 0W25	R123,R130,R140,R143,R145,R146, R147,R171,R172,R173,R174,R175, R176
K101126	R CF H150E J 0W25	R133,R168
K101127	R CF H180E J 0W25	R144,R9
K101128	R CF H220E J 0W25	R36 ,R39 ,R53 ,R68 ,R69
K101130	R CF H330E J 0W25	R151,R152,R153,R154,R155,R156, R157,R158
K101131	R CF H390E J 0W25	R120,R124,R127,R135,R35 ,R8
K101132	R CF H470E J 0W25	R34 ,R37 ,R63 ,R67
K101133	R CF H560E J 0W25	R72
K101134	R CF H680E J 0W25	R38 ,R46 ,R47 ,R48 ,R49 ,R57 , R60
K101136	R CF H 1K J 0W25	R132,R136,R170,R3 ,R30 ,R4 , R71
K101137	R CF H 1K2 J 0W25	R7 ,R70
K101138	R CF H 1K5 J 0W25	R40 ,R41 ,R62 ,R97
K101139	R CF H 1K8 J 0W25	R27
K101140	R CF H 2K2 J 0W25	R13 ,R149,R44 ,R51 ,R66
K101142	R CF H 3K3 J 0W25	R26 ,R83 ,R84
K101143	R CF H 3K9 J 0W25	R65
K101144	R CF H 4K7 J 0W25	R101,R102,R106,R150,R159,R2 , R31 ,R32 ,R33 ,R42 ,R43 ,R50 , R89 ,R94
K101145	R CF H 5K6 J 0W25	R95
K101145	R CF H 5K6 J 0W25	R80 ,R82 ,R87 ,R98
K101146	R CF H 6K8 J 0W25	R16 ,R55
K101147	R CF H 8K2 J 0W25	R103,R163
K101148	R CF H 10K J 0W25	R1 ,R104,R108,R109,R110,R134, R137,R138,R139,R18 ,R20 ,R21 , R22 ,R23 ,R99 ,R179
K101149	R CF H 12K J 0W25	R86
K101150	R CF H 15K J 0W25	R100,R164,R24 ,R25 ,R28 ,R59 , R61 ,R64
K101151	R CF H 18K J 0W25	R85
K101152	R CF H 22K J 0W25	R105,R14 ,R77
K101153	R CF H 27K J 0W25	R161
K101154	R CF H 33K J 0W25	R15 ,R52 ,R96 ,R177
K101156	R CF H 47K J 0W25	R19
K101158	R CF H 68K J 0W25	R162
K101160	R CF H100K J 0W25	R165
K101160	R CF H100K J 0W25	R160,R76 ,R88 ,R90
K101164	R CF H220K J 0W25	R11 ,R12 ,R148,R79
K101166	R CF H330K J 0W25	R107

12. COLOUR TEMPERATURE ADJUSTMENT (P9-P10-P11 AND P121-P122 ON CRT BOARD)

The colour temperature adjustment is a combination of adjustments on the Decoder board, Frame board and the CRT board.
Before adjusting the colour temperature, adjust the ABL circuit.

1. ABL adjustment
- Display a 100% white field.
- Measure the DC voltage at pin 2 of J120 of CRT board and adjust brightness to obtain **0.63 V**.
- Measure the DC voltage at pin 12 of IC12 on DECODER board and adjust contrast to obtain **5.61 V**.
- Display a 10% white field.
- Measure the DC at the three cathodes on the CRT board and adjust VG2 at the CRF block on the Frame board to obtain **130 V** at the cathode with the highest voltage.

2. Colour temperature
- Use a calibrated colour analyser, such as the THOMA type TMF3. Select RGB measurement at 8000 K.

a) Highlights
- Display a 100% white field.
- Adjust brightness to 30 and contrast to 63.
- Adjust P9, P10, P11 on the DECODER board in minimum position.
- Measure the light output (colour analyser) for R, G, B and adjust P9, P10, P11 to obtain the following light output for the three colours:
  28" CRTs: **400 nit (Cd/m^2)** ± 50 nit
  33" CRTs: **300 nit (Cd/m2)** ± 50 nit

b) Lowlights
- Display a 10% white field.
- Adjust brightness and contrast to 30.
- Put P121 and P122 on the CRT board in mid position.
- Measure the light output and adjust brightness until the value for R is **2 nit**.
- Adjust P121 (G) and P122 (B) until the light output for the three colours is equal: approx. **2 nit.**

c) Repeat highlights and lowlights adjustment a couple of times because they interact.

d) Press store to store the brightness value.

e) Contrast
- Display a 100% white field.
- Adjust contrast to obtain **200 nit** light output.
- Press store to store contrast.

If you don't have a colour analyser at your disposal:
- Connect an RGB source and select it.
- Adjust P9-P10-P11 for a voltage of **60 Vpp** at the cathodes.
- Put potentiometers P121 and P122 in mid-position.

ORDER NO.	DESCRIPTION	ITEM
K131411	Q BC549C N SS TO92	Q13 ,Q25 ,Q26 ,Q31 Q1 ,Q11 ,Q12 ,Q16 ,Q19 ,Q2 , Q20 ,Q24 ,Q27 ,Q28 ,Q3 ,Q4 , Q5 ,Q6 ,Q7
K1314182	Q BC559C P SS TO92	Q17 ,Q18 ,Q29 ,Q30 Q10 ,Q14 ,Q15 ,Q8 ,Q9
K131621	D 1N4148 SW DO35	D1 ,D10 ,D11 ,D13 ,D14 ,D15 , D19 ,D2 ,D20 ,D23 ,D24 ,D25 , D26 ,D27 ,D28 ,D29 ,D3 ,D4 , D5 ,D6 ,D7 ,D8 ,D9
K131636	D BAT43 SCH DO35	D12 ,D21 ,D22
K131754	D ZEN 3V3 0W5 C DO35	Z19 ,Z20 ,Z21
K131757	D ZEN 3V9 0W5 C DO35	Z16 ,Z17 ,Z18
K132568	Q BF959 SS TO92	Q21 ,Q22 ,Q23
K132773	U 4565 TDA DIP18 P	U2
K132778	U 4555 TDA DIP28 P	U1
K132820	U 1013A TDA SIP9 P	U3
K132826	U 1203 LM DIP28 P	U12
K132870	U 8444 TDA DIP16 P	U4
K133024	J U0.3 FBT P 8 R2.5	UV11
K134001	U 7805 TO220 P	U16
K134002	U 7812 TO220 P	U15
K137002	U 74HCT573 DIP20 P	U8
K137176	U 24C04 X DIP8 P	U11
K137190	U 8031AH DIP40 P	U7
K137320	U 4001B DIP14 P	U14
K137391	U 4053B DIL16 P	U13
K137567	U 74HCT574 DIP20 P	U9
K137590	U 74HC4538 DIP16 P	U5
K302108	CORE TUBE 1.3/ 3.5 X 3	Q21 ,Q22 ,Q23
K3060121	CH RA ES 3.3 UH ADJ7X7	L7
K3060201	CH RA ES 6.8 UH ADJ7X7	L3
K306024	CH RA NS 10 UH	L4
K3060241	CH RA ES 10 UH ADJ7X7	L1 ,L2 ,L5 ,L6
K3060281	CH RA ES 15 UH ADJ7X7	L9
K3060321	CH RA ES 22 UH ADJ7X7	L8
K3061222	CH AX NS 1.5 UH	L21
K3061322	CH AX NS 10 UH	L10 ,L20 ,L22 ,L24 ,L23 ,L25
K306511	DL M P/S DL710/1	DL1
K306529	DL P DL750	DL2
K306816	X 8.867 238 MHZ	Y2
K306849	X 7.159 090 MHZ 5MM	Y1
K306860	X 12.000 000 MHZ 5MM	Y3
K313253	J U0.6 FBT P 28 R2.54	UV10
K313276	J MOD1 MBT P 10 R2.5 SN	J17 ,J18 ,J19
K3135372	J MT MBT P 6 R2.5 RED	J6
K313572	J MT MBT P 3 R2.5 BLA	J16
K313580	J MT MBT P 5 R2.5 BLA	J11 ,J15 ,J8
K3135802	J MT MBT P 5 R2.5 RED	J12
K3135805	J MT MBT P 5 R2.5 GRE	J7
K313581	J MT MBT P 10 R2.5 BLA	J1

ORDER NO.	DESCRIPTION	ITEM
K101168	R CF H470K J 0W25	R166
K1028241	R MF H 91E G 0W6	R122,R126,R129
K106101	R TCA H100E M 0W1 D10NO	P10 ,P11 ,P9
K106102	R TCA H220E M 0W1 D10NO	P7
K106104	R TCA H 1K M 0W1 D10NO	P8
K106105	R TCA H 2K2 M 0W1 D10NO	P5 ,P6
K107027	R TCE V 2K M 0W5 S7 SS	P12
K111458	C EL RA 470M Z 10E2 85	C94
K111476	C EL RA 47M Z 25E2 85	C36
K111477	C EL RA 100M Z 25E2 85	C102,C103,C99 ,C111
K111478	C EL RA 220M Z 25E2 85	C56
K111479	C EL RA 470M Z 25E2 85	C59
K111510	C EL RAMI22M M 25E2 85	C22 ,C39 ,C71
K111531	C EL RAMI10M M 35E2 85	C100,C35 ,C41 ,C52 ,C60
K111546	C EL RAMI 1M M 50E2 85	C57 ,C72
K1115915	C EL5RAMI 4M7M 35E2 85	C75 ,C76 ,C77 ,C83
K112230	C NP0 MI 10P G 63E2	C112
K112230	C NP0 MI 10P G 63E2	C85
K112234	C NP0 MI 22P G 63E2	C4 ,C6
K112235	C NP0 MI 27P G 63E2	C69 ,C70 ,C85
K112237	C NP0 MI 39P G 63E2	C88 ,C91
K1122395	C NP0 MI 56P G 63E2	C44 ,C45
K112240	C NP0 MI 68P J 63E2	C3 ,C7
K112242	C NP0 MI 100P J 63E2	C16 ,C17 ,C24 ,C38 ,C66
K112243	C NP0 MI 120P J 63E2	C5 ,C8
K112364	C N750MI 150P J 63E2	C31 ,C89
K112365	C N750MI 180P J 63E2	C86 ,C92
K112366	C N750MI 220P J 63E2	C1 ,C2 ,C20 ,C37 ,C63 ,C65 C61
K112368	C N750MI 330P J 63E2	C106,C46
K112386	C N152MI 390P J 63E2	C33
K112735	C CE MI 470P K 63E2	C47 ,C48
K112739	C CE MI 1N K 63E2	C13 ,C23 ,C26 ,C28 ,C29 ,C30 , C32 ,C34
K112743	C CE MI 2N2K 63E2	C107,C54
K112744	C CE MI 2N7K 63E2	C
K112760	C CE MI 3N3K 63E2	C64
K112763	C CE MI 10N U 63E2	C84 ,C87 ,C90
K1127741	C CE MI 100N U 63E2	C119
K1137121	C POMERA 10N K100E2 85	C73 ,C80 ,C81 ,C82 ,C93
K1137161	C POMERA 22N K100E2 85	C11 ,C12 ,C9
K113720	C POMERA 47N K 63E2 85	C15
K113724	C POMERA 100N K 63E2 85	C104,C105,C108,C114,C115,C116, C117,C19 ,C53 ,C55 ,C58 ,C62 , C18 ,C21 ,C78 ,C79
K113728	C POMERA 220N K 63E2 85	C113,C74 ,C95 ,C96 ,C97 ,C98
K113730	C POMERA 330N K 63E2 85	C10 ,C14 ,C40 ,C42 ,C43 ,C49
K113732	C POMERA 470N K 63E2 85	C109 ,C110
K1159161	C PP RA 1N J100E2	C101
K117001	C T 7 -35P 160	C25 ,C27

2.6 CONTROL AND SWITCH BOARDS

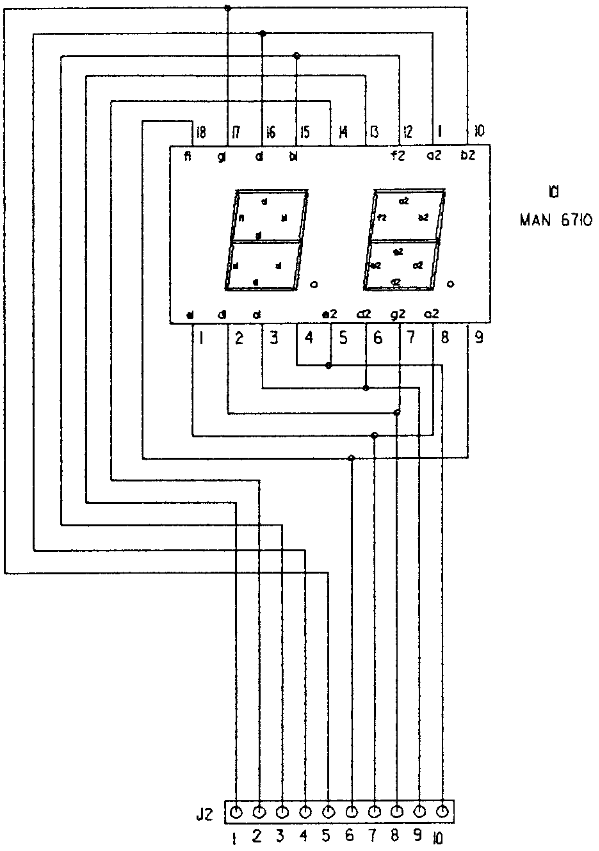
Printed Circuit Board **K789027** is used in unit **K761994**
Printed Circuit Board **K789031** is used in unit **K761991**
Printed Circuit Board **K789030** is used in unit **K761990**
Printed Circuit Board **K789039** is used in unit **K761986**

Please refer to the detailed parts lists in the back of this chapter.

Parts list

ORDER NO.	DESCRIPTION	ITEM
K313584	J MT MBT P 2 R2.5 BLA	J4
K313585	J MT MBT P 4 R2.5 BLA	J10
K3135872	J MT MBT P 8 R2.5 RED	J5
K3135882	J MT MBT P 11 R2.5 RED	J3
K313689	J MT MBT P 13 R2.5 BLA	J9
K3153102	J TAB MBT H 2.8S0.5	J
K329003	U S BVC MN46 DEC Q+SND 1	U10
K34216803	UN WIRE WHI AWG24 L 3	W1
K3482007	SLV OIL D 1.5 L 7.5 RED	003
K348204	SLV OIL D 1.5 L20 RED	002
K362122	SCR DIN7985 M 3 X 8	0011
K366102	NUT DIN934 M 3	0013
K367502	WSHR DIN6798 A 3.2 F Z	0012
K789028	PCB MN46 DEC Q+SOUND 7	PC
K802251	HTSNK MN46 OCM28 DECODER	001
V102922	R MF H 68E J 1W6	R178

BARCO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15
14
13
12
11
10
f1
g1
a1
b1
f2
a2
b2
D1
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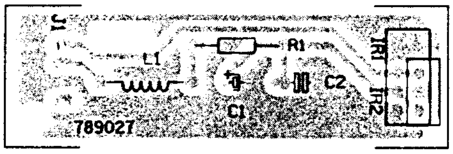
e1
d1
c1
e2
d2
g2
c2
1
2
3
4
5
6
7
8
9
J2
1
2
3
4
5
6
7
8
9
10

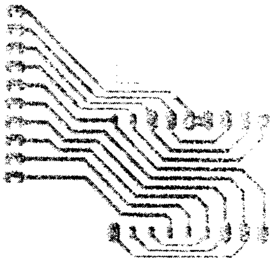
This PCB is used in unit no. K761990

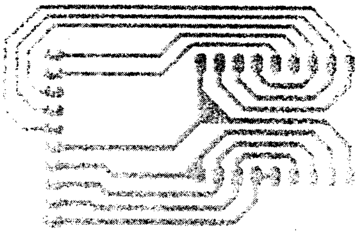
Name LEDISPL. 2846		PCB no. K789030
Date 27 08 92	Drawn JN	Checked RDF

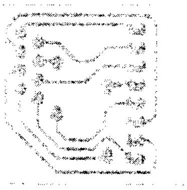
VIDEO & COMMUNICATIONS

SCHEMATIC NAME: led2846.sch SHEET NUMBER: 1 DATE: Aug 27. 1992





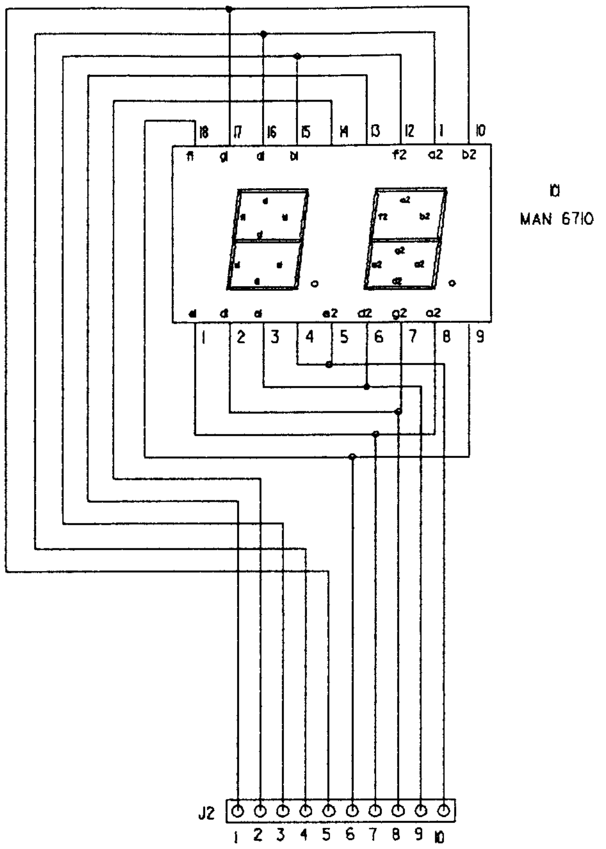




PCB K789027 is used in unit no. K761994,
PCB K789031 is used in unit no. K761991,
PCB K789030 is used in unit no. K761990,
PCB K789039 is used in unit no. K761986

Name CONTROL SWITCH B OARDS		**PCB no.**
Date 25/06/92	**Drawn** RIP	**Checked** RIP
Video & Communications		

BARCO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MAN 6710
18
17
16
15
14
13
12
1
10
f1
g1
a1
b1
f2
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b2
e1
d1
c1
e2
d2
g2
c2
1
2
3
4
5
6
7
8
9
J2
1
2
3
4
5
6
7
8
9
10

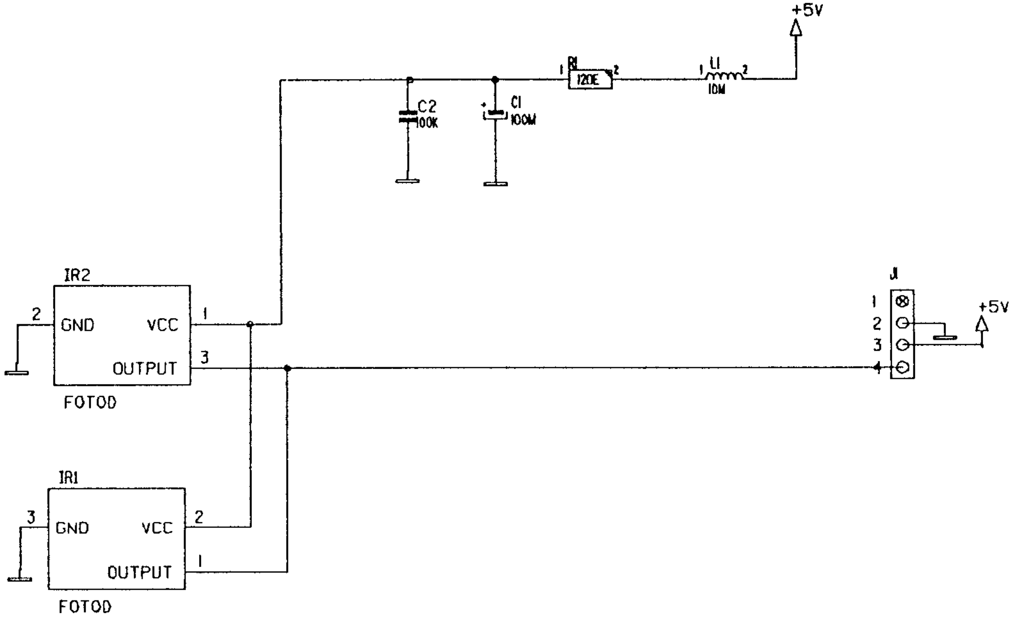
This PCB is used in unit no. K711991

Name LEDISPL. 3346	PC B no. K 789031

Date 27 08 92	Drawn JN	Checked RDF

VIDEO & COMMUNICATIONS

SCHEMATIC NAME: led3346.sch SHEET NUMBER: 1 DATE: Aug 21, 1992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R1
120E
1
2
L1
10M
C2
100K
C1
100M
+
IR2
GND
VCC
OUTPUT
FOTOD
IR1
J1
+5V

This PCB is used in unit no. K761994

Name IR RECEIVER		PCB no. K789027
Date 27 08 92	Drawn JN	Checked RDF

VIDEO & COMMUNICATIONS

SCHEMATIC NAME: irrec46.sch SHEET NUMBER: 1 DATE: Aug 27, 1992

K761994

ORDER NO.	DESCRIPTION	ITEM
K101125	R CF H120E J 0W25	R1
V1114972	C EL RA 100M M 10E1 105	C1
K113724	C POMERA 100N K 63E2 85	C2
K3061322	CH AX NS 10 UH	L1
K322110	U 1621-53 SBX	IR1
K344040	CD MT FL BLA 950 1XP 4	W1
K348019	W ACC TIE BAND L100 W2.5	W1
K761987A	UN RGB MN46 CRT RC 01	
K789027	PCB MN46 I/O SUB SVHS 7	
K789034	PCB MN46 RGB+CRT SOC 02	
K804138	CAN RECEIVER INFRARED 46	0010

K7915955

ORDER NO.	DESCRIPTION	ITEM
K324715	SW NE18CTII 2A 4/64A AC	
K7915955D	UN CSB MN46 OCM28 S_AC110	

2.K7916405

ORDER NO.	DESCRIPTION	ITEM
K3130973	J MAINS MCT A 3 PMF	032
K324268	SW KEYBOARD MN46 OCM	0520
K3420091	W ACC TIE FIX 5 TM2	040
K348006	W ACC TIE BAND L140 W	041
K358043	LOCK PUSH-PUSH 3199 PROMI	0560
K3615075	SCR DIN7981 3.2X 8.5	0561
K361914	SCR DIN965 M 3 X 10	0321
K3621225	SCR DIN7985 M 3 X 6	0201
K3621533	SCR DIN7985 M 4 X 12 T	0102
K3621545	SCR DIN7985 M 4 X 16	033
K363510	SCR DIN7971 2.2X 6.5	0511,0521,0543
K366102	NUT DIN934 M 3	0323
K366103	NUT DIN934 M 4	0101,0331
K367502	WSHR DIN6798 A 3.2 F Z	0322
K367503	WSHR DIN6798 A 4.3 F Z	0332
K4207693	KNOB PUSH	0541
K590206	LABEL PJ EARTH 00	0333
K7123037	WSHR D 3.25X10 T0.7 E	0202
K7123061	WSHR D 4.25X15 T1 Z	0103
K721750	WDW TV 40 DSPL NUM FST40	0221
K721869	GUID TV 40 TX CSB FST	007
K721871	DOOR TV 40 CSB CASE FST	0070
K721895	HSG MN40 MAINS SW SCRFST	0542
K722124	HSG MN40 OCRM33 CSBPLINTH	010
K722138	DPL MN40 OCRM33 LED	021
K722191	DPL MN46 OCM33 CSB LED	0305
K722192	DPL MN46 OCM33 CSB BARCO	0306

1.K7916145

ORDER NO.	DESCRIPTION	ITEM
K3130973	J MAINS MCT A 3 PMF	007
K321047	SPKR 5W 8E 160X 57	001
K324268	SW KEYBOARD MN46 OCM	0021
K3420091	W ACC TIE FIX 5 TM2	008
K348006	W ACC TIE BAND L140 W	0082
K348219	UN W TV40 LS 80CM	0014
K3482222	UN W TV40 LS 550CM	0015
K358043	LOCK PUSH-PUSH 3199 PROMI	0053
K3615075	SCR DIN7981 3.2X 8.5	0013,0051,0054,0081
K3615095	SCR DIN7981 4.2X 9.5	0112
K3619145	SCR DIN965 M 3 X 10	0071
K363510	SCR DIN7971 2.2X 6.5	0023,0042,0046
K367502	WSHR DIN6798 A 3.2 F Z	0072,0073
K7123022	WSHR D 3.25X 7 T0.7 E	0010
K721405	BSHG SNAP DIA17 / 8	0111
K721986	FIX TV 40 CSB PC MAR	005
K721987	SPKR BAFFLE MARATHON	0012
K721988	FIX TV 40 REC PC MAR	004
K721991	WDW TV 40 IR REC MARATHON	
K721994	KNOB PUSH ON-OFF MAR	0043
K722139	DOOR MN46 OCM28 CSB PLINT	0065
K722149	WDW MN46 OCM28 PLINTH BIG	003
K722152	HSG MN46 OCM28 PLINTH CPL	006
K723046	HSG MN46 CSB PANEL OCM28	002
K732070	LS TEXT NON WOVEN BLA 170	0011
K761986	UN I/O MN46 SVHS RC 00	0022
K761991	UN DSPL MN46 OC28 RC 00	0045
K761994	UN RX MN46 RC 00	0044
K7915955	UN CSB MN46 OCM28 S_AC110	0041
K802061	WDW TV 40 MARATH CSB LEXA	0040
K804058	FOOT MN46 OCM 28	011

K761986

ORDER NO.	DESCRIPTION	ITEM
K314308	J ZIFLO MBS P 8 R1.25PCB	
K344039	CD MT FL RED 1000 1XP 8	
K348019	W ACC TIE BAND L100 W2.5	
K789039	PC MN46 CSB 7	

K761991

ORDER NO.	DESCRIPTION	ITEM
K131671	LED 2DIG C.A RED MAN6710	
K344038	CD MT FL BLA 800 1XP10	
K789031	PCB MN46 2846 DSPL R.C 7	

3. K791648

ORDER NO.	DESCRIPTION	ITEM
K3130973	J MAINS MCT A 3 PMF	002
K324715	SW NE18CTII 2A 4/64A AC	003
K3619145	SCR DIN965 M 3 X 10	0021
K363511	SCR DIN7971 2.2X 9.5	0035
K363601	SCR DIN7981 2.9X 6.5	0032
K721696	ISOL TV 40 SW CS40	0031
K721795	KNOB PUSH RED DCD2740	0033
K721834	KNOB TURN CENTER DCD2740	0034
K791648D	UN S MN46 SCM28 AC CPL	
K802572	FRM MN46 SCM28 MAINS INP	

K722193	DPL MN46 OCM33 CSB DSPL	0304
K723047	HSG MN46 CSB PANEL $$$ 00	0500
K761986	UN I/O MN46 SVHS RC 00	0520
K761990	UN DSPL MN46 OC33 RC 00	0510
K761994	UN RX MN46 RC 00	0530
K7916519	UN CSB MN46 OCM33 S_AC110	0540
K801161	SPG TV 40 FST N10D3.6D0.5	0072
K802321	WDW TV 40 OPERA2 CTRS FIL	0211
K8024271	HSG MN46 OCM33 PLINTH BOX	0100
K804145	DPL MN46 OCM3346 CSB	052

K761986

ORDER NO.	DESCRIPTION	ITEM
K314308	J ZIFLO MBS P 8 R1.25PCB	
K344039	CD MT FL RED 1000 1XP 8	
K348019	W ACC TIE BAND L100 W2.5	
K789039	PC MN46 CSB 7	

K761990

ORDER NO.	DESCRIPTION	ITEM
K131671	LED 2DIG C.A RED MAN6710	
K3440381	CD MT FL BLA 1350 1XP10	
K348019	W ACC TIE BAND L100 W2.5	
K789030	PCB MN46 3346 DSPL R.C 7	

K761994

ORDER NO.	DESCRIPTION	ITEM
K101125	R CF H120E J 0W25	R1
V1114972	C EL RA 100M M 10E1 105	C1
K113724	C POMERA 100N K 63E2 85	C2
K3061322	CH AX NS 10 UH	L1
K322110	U 1621-53 SBX	IR1
K344040	CD MT FL BLA 950 1XP 4	W1
K348019	W ACC TIE BAND L100 W2.5	W1
K789027	PCB MN46 I/O SUB SVHS 7	
K804138	CAN RECEIVER INFRARED 46	0010

K7916519

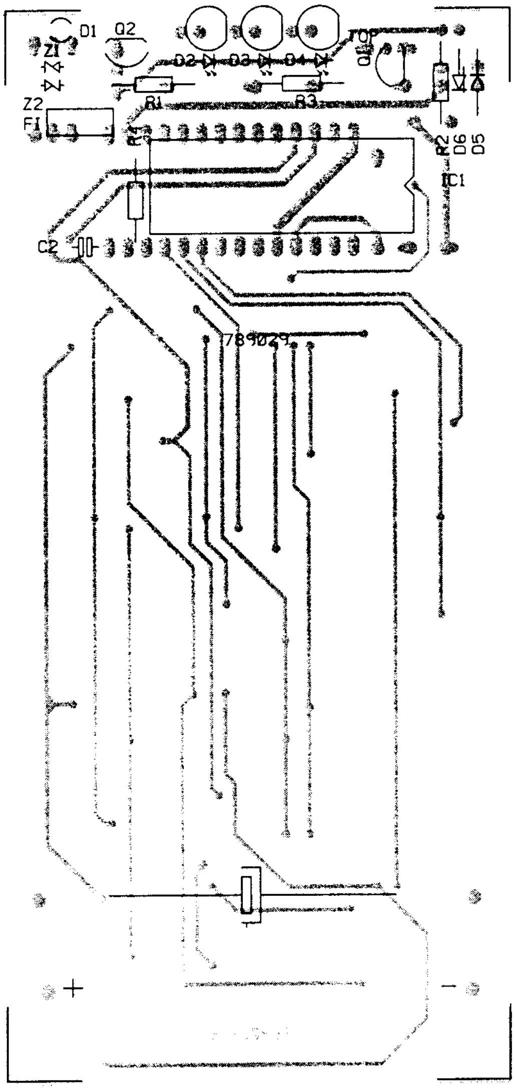
ORDER NO.	DESCRIPTION	ITEM
K324715	SW NE18CTII 2A 4/64A AC	
K7916519D	UN CSB MN46 OCM33 S_AC110	

2.7 TRANSMITTER

Important: the diagram in this chapter corresponds to Printed Circuit Board **K789029**. This PCB is used in the following unit:

K7619895

Please refer to the detailed parts list of this unit in the back of this chapter.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Z1
Z2
F1
D2
D3
D4
TOP
Q1
R1
R3
R2
D6
D5
R4
IC1
C2
789029
+
−

This PCB is used in unit no. K7619895

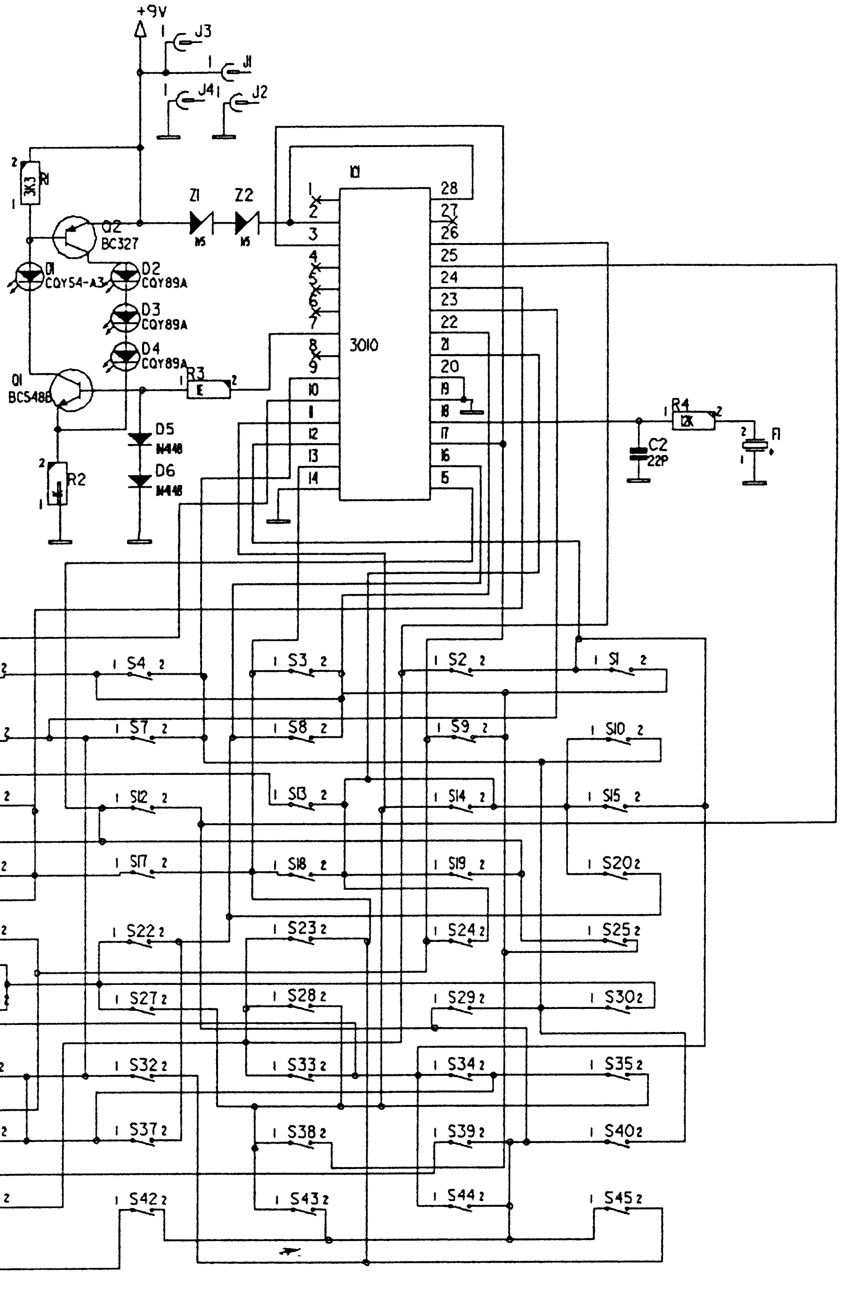
Name TRANSMITTER		**PCB no.** K789029
Date 25/06/92	**Drawn** RIP	**Checked** RIP
Video & Communications		

2.7 TRANSMITTER
Parts list

1. K7619895

ORDER NO.	DESCRIPTION	ITEM
K101100	R CF H 1E J 0W25	R3
K101136	R CF H 1K J 0W25	R2 ,R5
K101142	R CF H 3K3 J 0W25	R1
K101149	R CF H 12K J 0W25	R4
K1111355	C EL AX1000M T 10E14 85	C1
K112234	C NP0 MI 22P G 63E2	C2
K131429	Q BC548B N SS TO92	Q1
K1314311	Q BC327 P SS TO92	Q2
K131621	D 1N4148 SW DO35	D5 ,D6
K131662	D LED D3 T RED	D1
K1316666	D LED D5 T IR	D2 ,D3 ,D4
K131667	D LED D3 T GRE	Z1 ,Z2
K132858	U 3010 SAA DIP28 P	IC1
K306819	FLTR CER 0.429 000MHZ	FI
K313196	J BAT WS P 2 9V	
K327000	BAT 9V PP3 ALKALINE	
K3615075	SCR DIN7981 3.2X 8.5	
K593529	BAG PE 100X 220X 0.07	
K721671	HSG TV40 TX CVR DN	
K721672	HSG TV40 TX DOOR	
K721673	HSG TV40 WDW IR	
K721676	KNOB PUSH TX 40	
K7216762	KNOB PUSH TX 40 RED	
K7216768	KNOB PUSH TX 40 GRA	
K721894	HSG TV40 TX CVR FST	
K789029	PCB MN46 TX R.C. 7	PC
K800181	SW TV 40 MATRIX TX	
K800349	HSG TV40 TX WDW LEAFLET	
K804129	DPL MN46 TX USER	

BARCO


+9V
J3
J1
J41
J2
R1
3K3
Q2
BC327
Z1
Z2
IC1
3010
D1
CQY54-A3
D2
CQY89A
D3
CQY89A
D4
CQY89A
Q1
BC548B
R3
R2
D5
N4148
D6
N4148
R4
12K
C2
22P
F1
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10
S11
S12
S13
S14
S15
S16
S17
S18
S19
S20
S21
S22
S23
S24
S25
S26
S27
S28
S29
S30
S31
S32
S33
S34
S35
S36
S37
S38
S39
S40
S41
S42
S43
S44
S45

This PCB is used in unit no. K7619895

Name		PCB no.
TANSMITTER		K789029
Date	Drawn	Checked
27 08 92	JN	RDF

VIDEO & COMMUNICATIONS

SCHEMATIC NAME: transm46.sch SHEET NUMBER: 1 DATE: Aug 27, 1992

2.8 RS422 BOARD

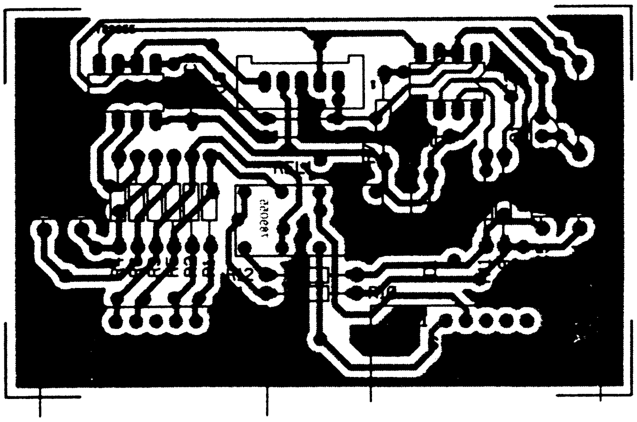
Important: the diagram in this chapter corresponds to Printed Circuit Board **K789055**. This PCB is used in the following unit:

K7619961

Please refer to the detailed parts list of this unit in the back of this chapter.

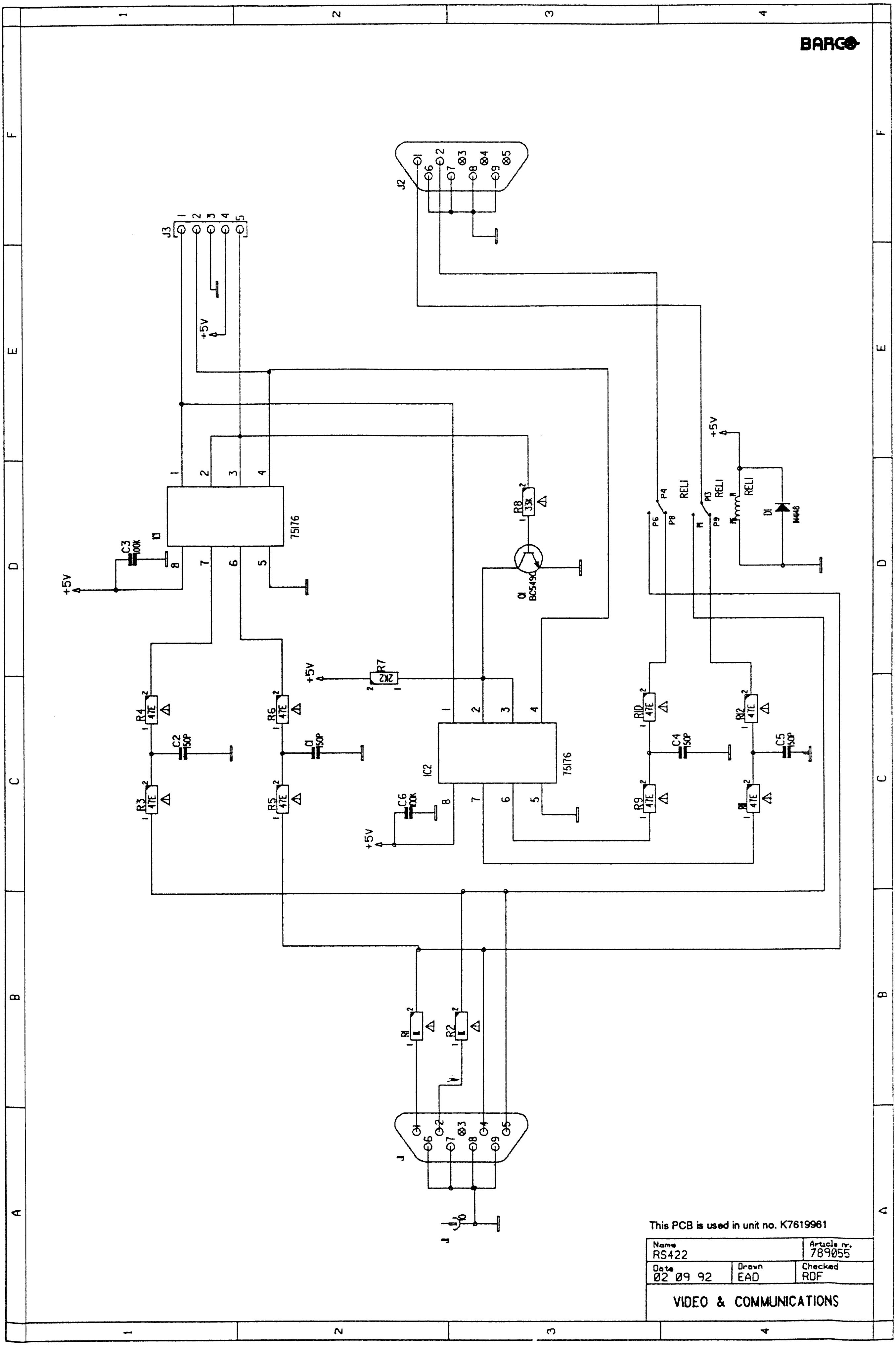
2. K761989 SERVICE COMMANDER

ORDER NO.	DESCRIPTION	ITEM
K101100	R CF H 1E J 0W25	R3
K101136	R CF H 1K J 0W25	R2 ,R5
K101142	R CF H 3K3 J 0W25	R1
K101149	R CF H 12K J 0W25	R4
K1111355	C EL AX1000M T 10E14 85	C1
K112234	C NP0 MI 22P G 63E2	C2
K131429	Q BC548B N SS TO92	Q1
K1314311	Q BC327 P SS TO92	Q2
K131621	D 1N4148 SW DO35	D5 ,D6
K131662	D LED D3 T RED	D1
K1316666	D LED D5 T IR	D2 ,D3 ,D4
K131667	D LED D3 T GRE	Z1 ,Z2
K132858	U 3010 SAA DIP28 P	IC1
K306819	FLTR CER 0.429 000MHZ	FI
K313196	J BAT WS P 2 9V	
K327000	BAT 9V PP3 ALKALINE	
K3615075	SCR DIN7981 3.2X 8.5	
K593529	BAG PE 100X 220X 0.07	
K721671	HSG TV40 TX CVR DN	
K721672	HSG TV40 TX DOOR	
K721673	HSG TV40 WDW IR	
K721676	KNOB PUSH TX 40	
K7216762	KNOB PUSH TX 40 RED	
K7216768	KNOB PUSH TX 40 GRA	
K721894	HSG TV40 TX CVR FST	
K789029	PCB MN46 TX R.C. 7	PC
K800181	SW TV 40 MATRIX TX	
K800349	HSG TV40 TX WDW LEAFLET	
K804128	DPL MN46 TX SERVICE	



This PCB is used in unit no. K7[illegible]961

Name RS422 BOARD		**PCB no.** K789055
Date 25/06/92	**Drawn** RIP	**Checked** RIP
Video & Communications		


BARCO
J3
+5V
J2
IC1
75176
C3 100K
R8 33K
Q1 BC549C
P4 RELI
P3 RELI
RELI
P6 P8
P1 P9 P5
D1 1N4148
R7 2K2
R4 47E
R3 47E
C2 50P
R6 47E
R5 47E
C1 50P
IC2
75176
C6 100K
R10 47E
R9 47E
C4 50P
R12 47E
R11 47E
C5 50P
R1 1K
R2 1K
J1
1 2 3 4
A B C D E F

SCHEMATIC NAME: rs422_ir.sch SHEET NUMBER: 1 DATE: Sep 2,1992

This PCB is used in unit no. K7619961

Name		Article nr.
RS422		789055
Date 02 09 92	Drawn EAD	Checked RDF

VIDEO & COMMUNICATIONS

2.8 RS422 board

Parts list

K7619961

ORDER NO.	DESCRIPTION	ITEM
K101120	R CF H 47E J 0W25	R10 ,R11 ,R12 ,R3 ,R4 ,R5 , R6 ,R9
K101136	R CF H 1K J 0W25	R1 ,R2
K101140	R CF H 2K2 J 0W25	R7
K101154	R CF H 33K J 0W25	R8
K112284	C N150MI 150P J 63E2	C1 ,C2 ,C4 ,C5
K1127830	C X7R MU 100N K 50E2 125	C3 ,C6
K131411	Q BC549C N SS TO92	Q1
K131621	D 1N4148 SW DO35	D1
K133024	J U0.3 FBT P 8 R2.5	IC1 ,IC2
K134219	U 75176 DIP8 P	IC1 ,IC2
K313757	J DE09 FBS P 9 4.4 RFI	J1
K313758	J DE09 MBS P 9 4.4 RFI	J2
K324359	RLY 5V 2U 95E	RLY1
K3440531	CD MT FL BLA 700 1XP 5	W1
K348019	W ACC TIE BAND L100 W2.5	
K789055	PC MN46 RS422 SCM II 7	
V3135035	J D LOCK SCR 4/40	0110
V602915	CONNECTING PLATE 00	0100